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HARRISON OF IGHTHAM



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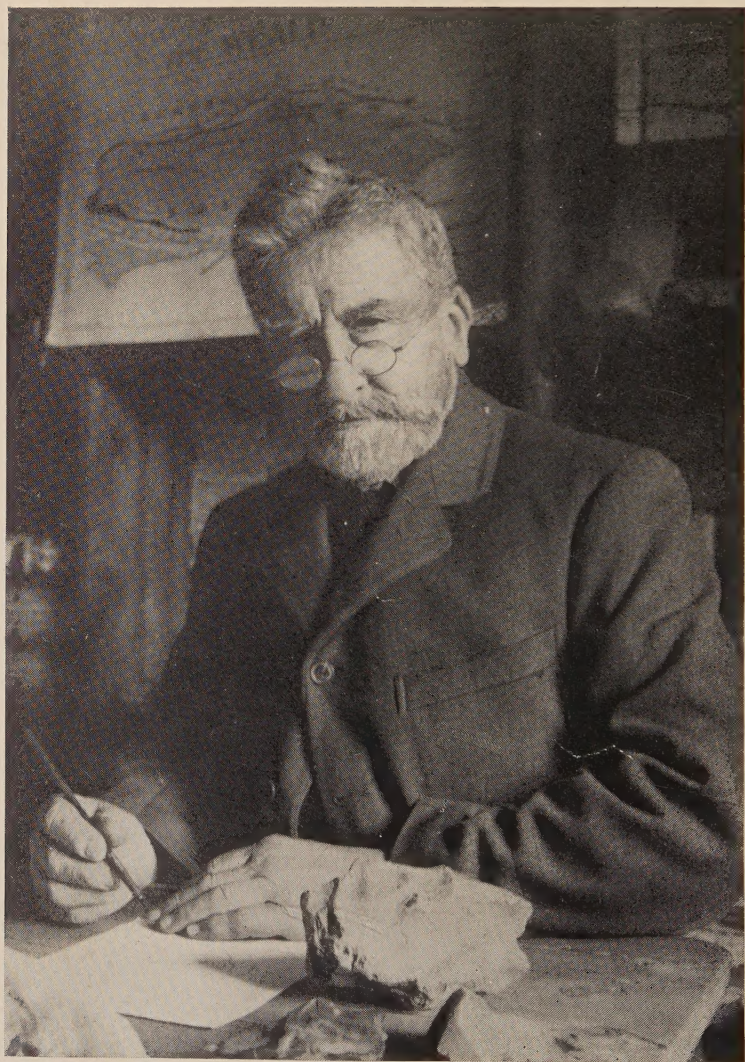


Photo by Wallace Chisholm, Shipborne

HARRISON IN HIS MUSEUM

HARRISON *of* IGHTHAM

A BOOK ABOUT
BENJAMIN HARRISON, OF IGHTHAM, KENT
MADE UP PRINCIPALLY OF EXTRACTS
FROM HIS NOTEBOOKS AND
CORRESPONDENCE

PREPARED FOR PUBLICATION
BY
SIR EDWARD R. HARRISON

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PREFACE

THIS is a book about Benjamin Harrison. It is made up principally of extracts from his notebooks and correspondence, which have been left to tell their story with only a minimum amount of elucidation or comment. The extracts printed have been chosen from a much larger number by reference to their scientific, general, local, or human interest, and it is hoped that together they may convey to the mind of the reader an impression of Benjamin Harrison as he was.

Although his work—the work for which he became known—was scientific work, it has not been attempted to make this book primarily a scientific book. Neither his notes nor his letters were written or intended for publication. The former were made as his own terse record of observations and events : a record that enabled him to speak with certainty concerning many incidents of which recollection alone is apt to be misleading. The latter were written rapidly, as was his wont, to his family or his friends, and in them he related the events and occasionally the thoughts of the moment.

Harrison was often urged by his friends to write an autobiography. He so far responded to these suggestions as to write down some autobiographical notes in which has been preserved much information that might otherwise have been lost. But he neither carried such notes to the point of publication nor advanced them to a stage at which they could be reproduced as a continuous narrative in the first person. They have, however, supplied much of the material from which the earlier chapters of this book have been written and gaps in the series of notebooks filled.

Harrison often omitted to date his letters. Accordingly, the precise date of a particular extract is sometimes uncertain. The writer dated all Harrison's letters to himself, on receipt, over a period of thirty years, and a similar course was followed by several other correspondents. Comparison of the contents of a letter with a dated entry in a notebook has enabled many letters to be dated, and on the whole, difficulties about dates have proved less than might have been expected. It is possible that occasional mistakes have been made in assigning dates to particular letters, but it has not been thought necessary on that account alone to indicate every case in which a date has been added to an undated communication.

The extracts printed have been edited to an extent sufficient to remove obscurities, and irrelevant passages have been freely omitted where desirable, and, in the case of Harrison's own writings, without the insertion of omission marks.¹

A chapter on Ightham has been placed at the beginning of the book, and Harrison's notes have been extensively used in this chapter, even before his entry into the world has been recorded.

The village stories and homely incidents which he jotted down here and there in his notebooks have been freely reproduced. His interest in the past, and his affection for the old type of rural character led him to preserve scraps of folk lore, recollections of old inhabitants, glimpses of humble life, quaint sayings, and stories of days that have passed away, which it may be hoped will not be forgotten.

An acknowledgement is due to many of Benjamin Harrison's friends who have courteously allowed the writer access to letters in their possession, or have given him permission to reproduce extracts from their own letters. In a few instances, owing to deaths, removals, and the lapse of time, he has failed to get into touch with correspondents or their present representatives, and has made use of letters without first obtaining

¹ It has often happened that only a small portion of a letter covering various subjects has been reproduced. To have indicated where passages have been omitted in all such cases could not but have wearied the reader.

permission to do so. If, in so doing, he should unwittingly have sinned in any case, he trusts that this explanation may be accepted as a sufficient apology.

Many letters which Harrison wrote have naturally been destroyed, a fact that explains why questions raised by his correspondents in letters printed in this book have not been dealt with by the publication of his answers. The writer would be grateful, notwithstanding the completion of this volume, to be allowed access to any of Harrison's letters which he has not already seen, but which may be still in existence.

To his Ightham friends the writer expresses the hope that, in drawing on Benjamin Harrison's stores of local information, he has not inserted anything relating either to themselves or to an earlier generation, concerning which they would wish that silence had been kept. In the reproduction of extracts relating to local matters he has suppressed names or inserted fictitious names where, for one reason or another, it seemed desirable to do so.

OLD STONES,
IGHTHAM, KENT, 1928.

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TO THE READER.

It is hoped that this book will prove to be of interest to some people who on seeing it will ask, 'Who was Benjamin Harrison?'

Benjamin Harrison was a man who lived at Ightham, in Kent, for eighty-three years, and for fifty-four years kept there a country general shop. He was also an ardent archaeologist, 'whose discoveries of eolithic flint implements around Ightham opened a fruitful field of scientific investigation into the greater antiquity of man'—so runs the inscription on a tablet which has been set up to his memory in Ightham church.

The incidents recorded in this book are not all of a kind usually found in biographies. They could not be : for Benjamin Harrison was not quite like any other man whose biography has been written. But if the attempt that has been made to portray him as he was has been successful, his biography should not be lacking in interest for the general reader, even if it contains some dull and some unexpected passages.

SIGNS AND ABBREVIATIONS USED

N. (with or without a date) indicates an extract from a note by Benjamin Harrison.

Square Brackets indicate an addition made to a passage in order to remove an obscurity.

Names followed by (x) are fictitious.

I

IGHTHAM

THE neighbourhood of Ightham¹ is so intimately connected with the name of Benjamin Harrison that an account of his life is bound to include some description of the place in which he lived. The story of Ightham has, however, been told in a volume published by the late Mr. F. J. Bennett, in 1907,² to which Harrison was a contributor, and the present chapter is made up mainly of extracts from letters and notes that have not been previously published.

For seventy or more years Harrison devoted his free hours to a study of the country around his home—his world, he called it—its history, archaeology and geology. He knew something of natural history and a great deal about the wild flowers of the district. He walked over nearly every square yard of the locality, and he was familiar with hill and vale, road, lane, by-way and path, woodland and field, for his devotion to archaeological investigation took him to all of them. He was the wise man of the place to whom every newly-found curiosity was brought for an opinion, whilst his advice was sought by many of his neighbours on such questions as water supply, an appropriate name for a newly-built house, or the existence of a right of way. If a hole was dug in the ground, whether for a quarry, a gravel-pit, a well or tank, or a trench to take the foundations of a house, he was usually notified, by owner or

¹ The first syllable of this word is 'ight', and rhymes with 'right'.

² *Ightham : the Story of a Kentish Village and its Surroundings* (or, more briefly, *The Story of Ightham*), by F. J. Bennett, F.G.S. (with contributions by Benjamin Harrison and others). The Homeland Association, Limited, 1907.

workman ; and he was quickly on the spot to ascertain whether the excavation disclosed any features of interest. His knowledge of the Ightham area was probably far greater than that of any other resident, and he supplemented his personal observations by obtaining and recording the recollections of his neighbours, and particularly of those who belonged to an older generation than his own.

The Ightham district, considered in relation to Harrison's activities, may be roughly defined by a circle of rather more than six miles' radius, drawn from his house as a centre. Such a circle would include nearly all the ground covered by him in his walks, except on the comparatively rare occasions when he made very lengthy excursions. On the whole, he may be said to have devoted considerably more time and attention to the northern and western than to the southern and eastern half of this circle, owing to the course of development of his scientific work—for his principal discoveries were made on the Chalk Plateau north of Ightham, or around Oldbury Hill to the west.

The village of Ightham, which is one of great charm, stands about 300 feet above sea level, twenty-five miles south-east of London, on the high road from Sevenoaks to Maidstone. To the westward the land rises quickly to the pine-crowned height of Oldbury Hill, and the sandy, heather-clad country characteristic of the Folkestone beds. The limestone of the Kentish Rag (Hythe beds) comes to the surface in Ightham village, and this formation extends southwards and upwards until at a height of 600-700 feet the crest of the Ragstone escarpment affords a beautiful and extensive view across the Weald of Kent and Sussex. Eastward and south-eastward, beyond the valley of Ightham's stream, the Shode, are seen the pines of Hurst Woods and, further away, the Chalk downs across the Medway. To the north, a dweller in Ightham looks, beyond the square-towered old church which crowns the nearest hill, across the broad vale of Holmesdale, to the Chalk hills, which—two miles away—rise to a height of 770 feet above sea level and bound the view on that side.

Ightham folk are justly proud of Ightham's ancient houses. Away at the south end of the parish, two miles and a half from the village, is Ightham Mote, well known as one of the finest of moated houses in this country. Under the Chalk hills to the north of Ightham is Aldham, or Yaldham, as it is spelt nowadays, once the home of Ann Boleyn. To Aldham came King Henry VIII, riding over the hills from Greenwich in the days when he sought her hand. Nearer Ightham, but still on the northern side, is Ightham Court, or more expressively, the Court Lodge—the manor house and seat of an ancient Court Baron. The present house dates only from 1575, but there was almost certainly an earlier house close by.

In Ightham village is the picturesque, half-timbered Elizabethan residence known as Town House, erected in 1587. Here is Harrison's account of the discovery of the date of this house, and a sequel :

N.—Before the restoration of Town House, the date had been a matter of guesswork. Sir John Evans, when passing by, in 1886, described it as a palaeolithic house, afterwards suggesting 1500 as the probable date. Another estimate was 1430.

On 6 November, 1893, the workmen who were employed in restoring the house found a date on an oak timber above a window at the south-east end of the house. They stated at first it was 1387 or 1587, but later on asserted it was 1187. I went down, and found the date to be 1587. The curve of the old-fashioned 5, however, was so slight that it appeared from a side view to be 1187.

Shortly after the discovery of the date inscribed on Town House, an inhabitant of Ightham came to me and said that a date affixed to a small house at the eastern end of Rectory Lane proved it to be a much older building, dating from 903. This puzzled me, but on passing that way next morning I solved the mystery. The alleged date was part of the number of the policy issued by a fire insurance company and was stamped on a metal plate affixed to the building. This number was 356,903, but the first three figures were obscured by whitewash and only 903 was visible.

The lower end of Ightham village street passes through an irregular square, around which is a group of picturesque old houses and cottages. Of these houses, and others now, alas,

superseded by more prosaic buildings, Harrison wrote as follows :

B. Harrison to E. Harrison.

8. 11. 1909

Durling¹ is restoring [Tudor House] in good style. In stripping the interior the workmen found a Tudor arch of oak, massive king-posts, and a fine old open fireplace hidden behind cupboards.

It seems to me that ancient Ightham consisted of a group of such houses [around the village square] : Town House, The George and Dragon inn (dating from 1515), The Bell inn (formerly the Daedalus Arms) and the house adjoining, a fine old place, now pulled down, which stood on the site of Vennell's shop, and another which I remember behind Winton's house. Ours was the figurehead of the village at its western end.

Amongst other old houses of interest are Old Bury Hall, a picturesque half-timbered building just below the rocks of Oldbury Hill, and a house lying behind a wheelwright's yard, a hundred yards to the west of Ightham village—with its setting of an oast-house, a forge, and a carpenter's thatched workshop. To Harrison's own house a separate chapter is given.

The derivation of the name, Ightham, has been the subject of considerable speculation, but remains uncertain. In *The Story of Ightham*, the supposition that the place has taken its name from eight hamlets that can be counted within the bounds of the parish was not received with much favour. Harrison also found this explanation unconvincing. He inclined to the view that the original name was Eyot-ham—the island home—and he connected the 'eyot' with two moated mounds that are still to be seen in the grounds of the manor house, Ightham Court.

B. Harrison to E. Harrison.

26. 7. 1907

A friend writes to Mr. Bennett, 'I looked up the possible derivation of Ightham itself a few days ago. I should not be surprised if B.H.'s suggestion is, after all, the truest one.'

Now here lies the value of my old Bailey's dictionary. Ait or

¹ Mr. William Durling, a builder of Ightham, whose craftsmanship in the treatment of old houses in the locality has contributed materially to the preservation of their best features.

Eyght, Bailey says, is derived from the Saxon Eight, and means a little island in a river where osiers grow. Bailey also has Eight Alney (i.e. Athelney). The name was spelt as Eightham in 1619. Without going so far as to deny the derivation from eight hams, I would suggest Eight, Ait, Eyot—*island*.

A note of 1891 contained a similar conjecture, and also sought to identify the eyot :

N.—3. 5. 1891. In the evening, walked to the Court Lodge. The first tumulus-like knoll, surrounded by a moat, is of interest—Folkestone beds with a Gault capping. This mound may be more ancient than is generally supposed : it forms the summit point [of the immediate neighbourhood], and the ground slopes in every direction, the view being extensive.

May this be the origin of Ightham : Eyot-ham, or island home ?

Several later notes and letters refer to the manor house and its surroundings, and indicate reasons for the suggestion that Ightham took its name from the moated mounds.

N.—21. 6. 1903. To Court Lodge field, west.¹ Noted the various drifts and also the boundary of the Gault. Found hundreds of neolithic flakes, two celts on the bare sand and eoliths in the drift at bottom. A very interesting spot.

N.—27. 6. 1904. To the Wilderness at the Court Lodge. We paced the moated mound and found it to be forty paces in diameter, and the dry mound sixty paces. The dry mound shows some flint drift in the dry way cut [through it] to the ice house. The moated mound we estimated to be twenty feet high. The [ditch round the] dry mound formerly held water.

The date over the door of the Court Lodge is 1575.

*B. Harrison to J. Scott Temple.*²

6. 10. 1904

The path leading from Fenpond³ to Aldham was once a road, according to Mr. Evelyn, the late owner. It is not unlikely that the rebels went that way at the time of the Wyatt rebellion (1554), as they were seen nearing the house of Packham at Aldham.

¹ Or, Great Field.

² Mr. Scott Temple assisted in the preparation of *The Story of Ightham*, and contributed a historical chapter.

³ Fenpond lies immediately to the north of the mounds at Ightham Court.

The various footpaths and roads—six in number—which radiate from the Court Lodge seem to support the view that the place was important in the past.

B. Harrison to E. Harrison.

23. 1. 1906

I met Colonel Bailey¹ and spoke of the moated mounds, and of the neolithic settlement in Great Field, probably the original settlement. He gave me permission to explore.

The Roman remains found beside the landway point to occupation—continuous, and beside a road.

B. Harrison to E. Harrison.

29. 8. 1906

J. Chalkley Gould and a friend were here yesterday. They had examined the earth-works at the Court Lodge. Gould looks upon the larger mound and ditch as the site of the original manor house.

B. Harrison to E. Harrison.

14. 3. 1911

The bread charity left by the James family² is disputed by Colonel Bailey who says the field [charged with the charitable bequest] is not now in his possession. The churchwarden names the field Wy-fold Mead. This field name is not in the list which I copied from the Tithe apportionment. I fancy it is part of Great Field, because the field [charged] is said to be partly in Wrotham parish. Great Field seems to be the only one divided.

The prefix wy- suggests importance in the past, as it indicates a sacred place. It is equivalent to the Gothic, holy, a sacred place or temple. In the field are some big ancient excavations which have taken my attention for years.

The above extracts, although in the nature of things discursive, indicate the way in which Harrison's mind worked as regards the origin of the name Ightham, namely :

(i) There was a human settlement on land adjoining the present manor house, in Great Field, as far back as the Stone Age. (Neolithic remains.)

(ii) There was also human occupation during the Roman period in Britain. (Relics near the landway.)

¹ A former owner of Ightham Court.

² At one time owners of Ightham Court and Manor.

(iii) The locality was anciently an important centre—six roads or paths radiate from it.

(iv) There may have been a sacred spot or temple there. (Wy-fold Mead.)

(v) The seat of the manor of Ightham is there.

(vi) The present manor house was preceded by an earlier building, the site of which was probably the curious moated mounds that occupy the highest ground, near to the existing house.

(vii) These moated mounds—or one of them—when crowned by a dwelling of some kind, gave rise to the name Island Home, Eyot-ham, Ightham.

Some glimpses into the past may be obtained from a few miscellaneous notes.

N.—About 200 years ago a murder took place on Oldbury Hill, and the criminal was hanged there, in a field known as Gibbet Field. In an old diary kept by Major Hastrecht James, of Ightham Court, it is recorded that the family of the lord of the manor walked down to Ightham village to see the murderer pass through the place when on his way to the gallows.

Harrison copied from a book kept by the overseers of the parish a quaint note, the meaning of which is plain :

1788. Memorandum. By a vestry held this day it is agreed that Dave Sanders be allowed one shilling per week, his child being a Nidget.

Although he did not himself excel greatly at cricket, Harrison, like all good Kentish men, was proud of the skill at the game displayed by the village teams. Ightham still possesses a good and beautiful cricket ground, and in olden times the renown of its pitch and its players was considerable.

B. Harrison to E. Harrison.

30. 7. 1906

I questioned old Shad Webb¹ as to the ancient parish cricket ground opposite Tebbs farm-house, said to have been the best

¹ An old inhabitant, from whom Harrison obtained much interesting information.

pitch in the county, and to have produced good players from our parish.

He located it, and added, 'We boys used to play there on Sunday afternoons'.

I remarked, 'If I had my will, cricket would still be played on Sundays, under control, at fixed times'.

Addressing Webb's companion, Homewood, I said, 'I suppose after your spell of work during the week you take a real rest on Sunday'.

He replied, 'No, I don't take no rest. I don't go to no church or no chapel, but I find plenty to do in my garden. I don't work to earn money but I keep tinkering about all day'.

It is many years since I heard this word used.

N.—8. 5. 1919. An old man of ninety-five called, with his daughter and son-in-law. He went to Ightham school and knew many old inhabitants, including Upton, who used to walk the street at night shouting, 'Past two o'clock, and very dark!'

Several entries in one of Harrison's diaries refer to the last days of the Ightham toll-gate :

N.—5. 3. 1870. Finch, blacksmith of Tonbridge, refused to pay the toll and was locked up in the stable of the Chequers inn by James Dunn. Soon settled.

N.—30. 6. 1870. At twelve o'clock the turn-pike gate was lifted off its hinges by Briggs and Anquetil. Haisman and his wife in donkey cart were the last who paid toll.

N.—21. 7. 1870. Gate-house sold by auction for £5.

N.—22. 7. 1870. Gate-house pulled down.

N.—23. 7. 1870. Gate-house carted away.

Harrison's observations of the last days of gate and gate-house were facilitated by the fact that the toll-gate stood immediately opposite his abode.

Manorial Courts in this country have now passed out of existence, but the Ightham Court Baron was held, at intervals, until 1924. The Steward of Ightham Manor was occasionally glad to avail himself of Harrison's local knowledge in clearing up obscure questions of tenure relating to the past.

N.—16. 12. 1898. Manorial Court held at the George and Dragon inn. Homage was paid and a jury chosen to apportion the quit rents.¹ The Mote estate, having been subdivided by purchase, took a long time to arrange.

One tenant of the Manor paid his quit rent, but said the lord failed to fulfil his duties, namely, the keeping of entire animals for the service of animals belonging to manorial tenants. Complaints were also made that the parish pound was useless for the impounding of stray cattle.

The Steward was ignorant of the first duty but promised to attend to the pound.

Ightham, like many other Kentish parishes, has its hop gardens (no native of Kent speaks of a hop field) and its orchards, but it is not the centre of either the hop or the fruit country. The village, however, claims to have produced the original Kentish cob-nuts, which are extensively cultivated in the surrounding district.

In a letter published in the *Spectator* for 18 May, 1907, Mr. W. J. Lewis Abbott drew attention to some large nuts found in the Ightham (or Basted) fissures,² where they had remained since Pleistocene times, and suggested that cob-nuts, or a nut very much resembling them, grew at Ightham in the remote past. Harrison, jealous for the local tradition, which had at any rate some element of picturesqueness, as well as plausibility, placed the Ightham story on record in the following letter :

B. Harrison to W. J. Lewis Abbott. 1907

My attention has been drawn to your letter in the *Spectator* respecting Kent cob-nuts. I give you my version.

The original tree was in the old kitchen garden at Ightham Mote. Mr. James Usherwood, farmer, wheelwright, and smith, procured cuttings, and in the days of my boyhood the first trees raised by him had grown to be large ones in his garden, next door to my house. He took up the cultivation of these trees, and raised plantations at

¹ i.e. the quit rents charged on lands that had been divided since the previous Court.

² See also *Ightham : the Story of a Kentish Village*, Appendix I, *The Ossiferous Fissures of the Valley of the Shode*, at page 105.

Oldbury, Mill Lane, and Cob-tree plantation, near the present Wesleyan chapel.

For many years he obtained very high prices for his nuts, and so did well in a pecuniary sense. Then he raised young trees, which were sold to planters at Boughton, Watlington, Mereworth, etc.

The Rector of Ightham in those bygone days was the Rev. Samuel Wyatt Cobb, whose son was a close friend of the Prince Regent, and used to stay with him at the Pavilion, Brighton. Some nuts were sent as a present to the Prince.

Old King George III saw them, and, struck by their large size, asked, 'What nuts are these?'

'They were sent to your Majesty by Mr. Cobb.'

'Cob-nuts, eh? Oh, cob-nuts, cob-nuts, eh?'

Hence the name cob-nuts. My authority for this story was the late Dr. Franks of Sevenoaks. He was then (in 1877) well-nigh ninety years old, but with a brain as clear as that of a young man. He was well acquainted with the district and its new products, and he also knew Mr. Cobb well.

I was at the cricket ground on Monday. My neighbour, Professor Church,¹ was also there, and as he is connected with the *Spectator*, I told him the story. He did not like my explanation, saying, 'Cob is a Saxon word, signifying the top, head, etc.'

There were in Harrison's early days parish psalm-singers. Their leader was the local thatcher and mole-catcher, a man who stuttered in conversation, but never, it was said, when singing or swearing. Psalm-singers from neighbouring villages attended at Ightham church from time to time, a visit from the psalm-singers of Kemsing being an annual event of note. The day nearest to a full moon was chosen for the visit, and, as a supper at the village inn followed the singing, the band no doubt had many a moonlight walk across the fields to their homes three or four miles away.

The death-knell of the Ightham psalm-singers was sounded about 1845. A new-comer to Ightham, who was a trained musician, took charge of the singing, and compelled the worthy band to quicken their pace and to alter their methods to such an extent as to cause them acute distress and ultimately to

¹ The late Rev. A. J. Church, Professor of Latin at University College, London, 1880-8.

extinguish them. A barrel organ was introduced into the church about 1850, when also the ancient high-backed oak pews gave place to seats of a more modern type. Lovers of antiquity may console themselves with the sight of four of the old-fashioned pews, which still remain in the church.

There were witches at Ightham, as elsewhere. Harrison's records of this subject may be introduced by the following letter :

B. Harrison to E. Harrison.

26. 3. 1900

We had an experience to-day, when on our walk. We called at old Moll Anderson's (x) cottage. She was full of trouble, as after a tenancy of forty-one years, she is under notice to quit. She has a wonderful parrot, whose talking powers, as described, are beyond belief.

Moll Anderson's grandmother, who lived close by, was in my boyhood the district witch. She charmed away corns and warts, and sometimes assumed the form of a hare. I had a wholesome dread of her, and when on my way to school at Seal, between 1845 and 1849, I used to hurry past her cottage.

The bird may be the old woman. Who knows ?

Another old inhabitant of Ightham knew Witch Anderson, as she was called. 'She sold yeast', he said, 'and we boys had to go to her house to obtain it. Our parents always sent the exact amount of money to pay for the yeast, as if we had taken any change it would have bewitched us.'

The same person told Harrison that a witch inhabited the glebe land at Oldbury. 'We boys', he said, 'played cricket there, and whenever we pitched our wickets a rabbit came out from a burrow and ran up into the large cave in Oldbury Wood. This was said to be a witch in the form of a rabbit.'

A third witch of Ightham is said to have lived in a cottage near Fenpond. Harrison's informant told him that his great-grandfather was a blacksmith, who dwelt at the house and forge opposite Town House. One of his daughters was bewitched by the Fenpond witch, and her parents consulted a 'wonderful man'—the seventh son of a seventh son—who visited Ightham occasionally, and whose advice was sought on such matters.

The 'wonderful man' instructed the girl's father to go to the witch's house and take a tile from her roof. This done, he was to place the tile in the fire of his forge and stand outside the forge on the night of a full moon. He was to look up the hill leading to the church—the direction in which the witch lived. This action, he was told, would disturb the witch, who would be seen coming down the hill.

'Now, if you signal to me when you see her', continued the 'wonderful man', 'I will take the tile out of the fire and cool it. The witch will thereupon stop and hesitate, as if about to turn back. I will then place the tile in the fire, and she will make her way here.'

All these events duly happened, and the witch came to the door of the forge and knocked. Failing to gain admission, she returned home and was taken ill.

The 'wonderful man' said, 'She will want you to do something for her, but do not do it, or your girl will be worse'.

Shortly afterwards the girl's father passed the witch's house when on his way to Yaldham Farm to shoe some horses. The niece of the witch, who lived with her, called him into the house, and took him to the room where the witch lay ill. She asked him to drive a nail into a beam for her, but he refused, saying that he was in a hurry. In consequence his daughter recovered.

It is an easy transition from tales of persecuted old women—we treat them better now and give them old age pensions—to stories of Ightham folk of a later generation, who were known personally to Harrison, and whose quaint sayings he delighted to record.

N.—The employer of one of the old type of labourers, which is now almost extinct, once said to me, 'Ask Homewood to tell you the tale about the new eye'. On meeting him shortly afterwards, I said, 'Your mistress told me to ask you about the new eye. What is it?'

'Well, sir, 'tain't much. It's only this : if you was to have a new eye, a third 'un, give to ye, where 'ud you like it put?'

I said, 'If it were placed at the back of my head it would be handy, for then I should see any one approaching from behind'.

He answered, 'No, you have it just at the top of your forefinger, then you could pook it over a wall and you'd see t'other side'.

N.—An old man who worked on the road at Ightham had an impediment in his speech which caused him to stutter badly. He would be quite unable to utter anything beyond the first consonant of the word he was trying to pronounce, until after a time, out came in a sudden burst, like a torrent, a whole sentence.

One morning, when engaged in road mending, he was asked by a lady to direct her to Sevenoaks.

'T—, t—, t—, take that road, ma'am, and k—, k—, k—, k—, why, why, why, go on, you'll get there before I can finish telling you,' was the amusing, if unexpected answer.

Harrison was fond of simplicity in any form, and the following incident, which he related to the writer, was much enjoyed by him.

It was the season of ripe huckleberries (you may call the berries whortleberries, bilberries, or whinberries, or even blaeberries if you come from beyond Tweed—we Ightham folk always speak of huckleberries), and the children were gathering the fruit in the woods and selling it, as usual, in the village. Two small girls presented themselves at Harrison's door and invited him to buy a basketful of huckleberries.

'How much are they?'

'They are fourpence or sixpence a quart.'

'Yes, but are they fourpence or sixpence, which?'

'Oh, please sir, mother said they are sixpence if we can get it and fourpence if we can't.'

Harrison added that he compromised with his conscience by paying fivepence.

A lady of the old-fashioned type, a widow, carried on a small fruit farm at Ightham. She was kindly and generous to her employees, but firm and even caustic when necessary. Her gardener, himself a well-known Ightham character, met Harrison one day.

'Ah, good morning, Charlton (x), and how is the missis this morning?'

'Why, sir, she's like cold damson tart without no sugar to it!'

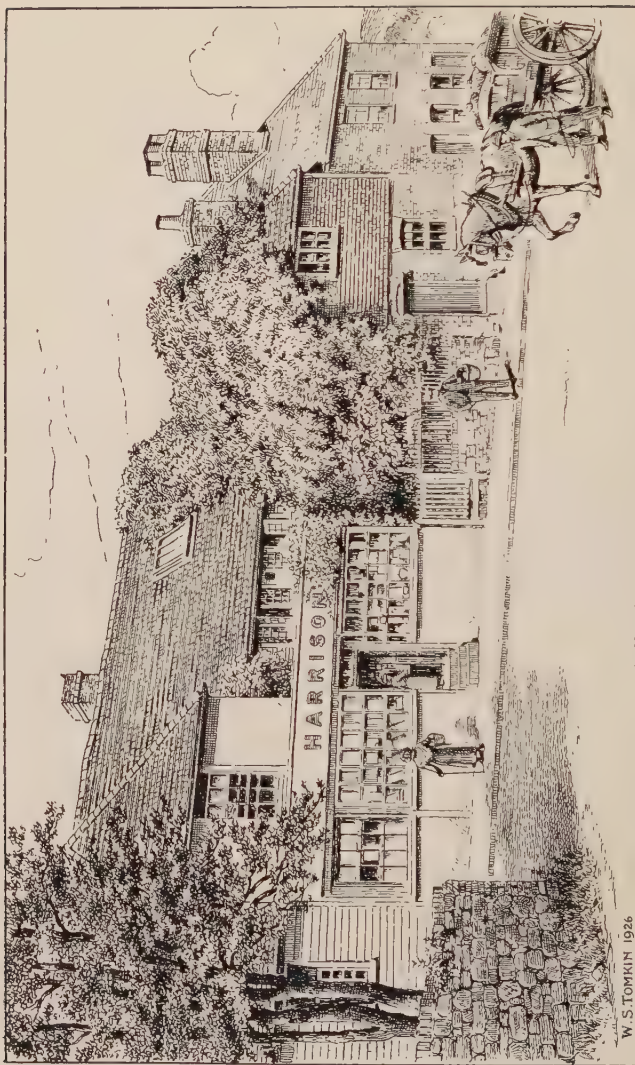
Two or three local sayings which Harrison noted are worth a place here :

It's God A'mighty's weather—it rains a-nights and Sundays.

Beating God A'mighty. Ploughing in lines that are not straight and so making 'rainbows on earth' is said to be 'beating God A'mighty'.

Just as a man begins to know how to live he han't got no teeth to eat his wittles with.

I freeze up well, but I thaw badly.



THE VILLAGE SHOP

W.S. TOMKIN 1926

II

THE HOUSE WHERE BENJAMIN HARRISON LIVED

It would be almost true to say that Harrison lived all his days in the same house at Ightham. Not quite, for he was born in a house that is now called Ightham Place. Before he was two years old his father took over the family business from a brother, and removed, in the spring of 1839, to the house in which the son grew up and dwelt for eighty-two years of his life.

This house stands at the western end of the village, where the road to Tonbridge leaves the road running from Maidstone to Sevenoaks.

To a geologist the house stands at an interesting spot, for within a distance of one hundred yards are three distinct geological formations as well as an implement-bearing river drift. Harrison made a note of the conditions :

N.—10. 5. 1900. A section of the road-side bank exposed in making a roadway into the meadow opposite [the house] disclosed below the vegetable soil a layer of tenacious clay, resting on an outcrop of chert.

The house stands on ground forming the base of the Sandgate beds, immediately above the Hythe beds. One hundred yards to the south the Folkestone beds can be seen above the Sandgate beds, whilst at the foot of the garden belonging to the house is the gravel of the Shode stream.

To an old-fashioned, creeper-clad house standing half a dozen yards back from the village street, was attached a projecting shop in which Harrison carried on, for many years, a country general business. Adjoining the shop on its western

side was a range of wooden, tiled buildings used for trade purposes. On the eastern side of the house, beyond the shop and beyond a little plot of garden, which gave access to the house, was an ancient cottage.

Both the house and the cottage were occupied by successive generations of the family. The cottage was the retreat of elderly members—Harrison's father amongst them—who retired to it after handing over the business next door to some member of a younger generation.

In 1922, a few months after Harrison's death, the shop and outbuildings—which had reached an advanced stage of senile decay—were demolished, and the house and cottage were made into a single dwelling. The opportunity was taken to restore the ancient front of the house ; and the alterations revealed much of the early history of the structure.

The cottage is considerably older than the house, and was probably erected not later than the fourteenth century. It was altered (prior to 1922) on three or more occasions. The date of the house is placed conjecturally between 1480 and 1540. It has since been altered or added to four or more times, the principal additions having been made in 1784 and 1841. The outbuildings, now demolished, were built some time before the year 1772.

Something must be said of one or two of the former occupants of the cottage. In 1867 Benjamin Harrison the elder handed over his business and house to his youngest son, the subject of this book, and retired to the cottage. He had recently lost his wife, and he engaged as housekeeper a widow named East, who, after his death in 1875, remained in the cottage until her death in 1912.

Mrs. East was a woman of sterling qualities and considerable strength of character. She was dependent for a livelihood on her earnings from letting furnished rooms, and many eminent persons who came to see Harrison and his flint implements spent a night or two under Mrs. East's roof, and carried away with them pleasing memories that were not wholly scientific.

Like Mrs. Wilfer, Mrs. East was incapable of lolling. Prim

in manner and appearance, and wearing her hair in ringlets after a fashion dating back well beyond living memory, she was always a striking figure, and particularly so when sitting bolt upright in her chair in conversation with a visitor. Her confidences related chiefly to the strange ways of her lodgers. A famous geologist and his wife were looked upon with scorn because they insisted on sleeping with their heads at the foot of the bed—presumably to keep the light of the window from their eyes.

A clerical lodger—whom it would be difficult to acquit of a charge of fussiness—incurred her withering contempt by asking her to close the cover of a coal-box, on the ground that a draught came from the inside of the scuttle.

A young man in whom she was interested called one day to tell her of his approaching marriage. In the course of a searching cross-examination the unfortunate man informed this good church-woman that his future wife was the daughter of a nonconformist. Mrs. East's convictions and ingrained prejudices, coupled with a desire to spare the feelings of her visitor, must have produced a violent internal struggle. The pursing of her lips and the glint in her eye spoke volumes, but all she said was, 'Ho, chapel !'

During the later years of her life—she died at the age of eighty-seven—Mrs. East had but the slenderest means of subsistence. However, between this proud old woman and village people in receipt of parish relief, whom she described as 'the poor', there was a great gulf fixed. She was, with extreme difficulty, persuaded to sign a form of application for an old-age pension, and her attitude towards the pensions officer who called to interrogate her as to her age and means, made that unfortunate man feel a very worm in her presence. 'He wanted to know too much', was her comment, made after the interview had concluded ; 'I did not tell him everything'. What she had kept back was that she was already eighty-three years of age when she obtained the pension, and that she subsisted on an income of seven shillings a week, subscribed by a few of her friends.

Mrs. East was slow to trust strangers, and made no attempt to conceal her suspicions. During her last days she became very feeble, and a woman was engaged to look after her. A week before she died she instructed her attendant to fetch from a cupboard her 'best china'. This was a white-and-gold tea service, and it was duly carried upstairs on a tray. The old lady solemnly and openly counted the pieces. Having satisfied herself that nothing was missing she graciously remarked, 'That will do. You can put them away again'.

Mrs. East's cottage was kept spotlessly clean, and her sitting-room was re-papered nearly every year, immediately before her earliest summer visitors were due to arrive. For this annual rite she commandeered the services of a good-natured relative, who carried on business as a house decorator in a neighbouring village. After her death, in 1912, a score or more of superimposed papers were stripped from the walls, and the earliest of the successive coverings was identified by Harrison as one dating from 1848, when his aunt occupied the cottage.

The house, like the cottage, was built on a timber frame. The front of the upper story, supported on oak beams, overhung the lower story by about two feet. A good example of a king-post, springing from a cross-beam, can be seen in an upper room supporting the roof timbers. Like many other old buildings in country villages, the house originally had two stories in front and at the back a long roof sloping down to within five feet of the ground. From this long roof there projected a huge chimney of the old-fashioned type, the tall stack of which, once, no doubt, perpendicular, had subsided into a shape that, in a human being, would be associated with curvature of the spine. This chimney was found to be in a dangerous condition, and was rebuilt in 1922. Harrison, who slept beneath its shadow, evidently suspected that it was unsafe.

B. Harrison to E. Harrison.

28. 12. 1914

I hope you got home safely, for if the wind was as rough as here, making headway against it would be difficult.

We were at supper when a noise like a bomb was heard. On running out I found the old chimney as usual—I had feared its fall. The force of the gale was terrific and disturbing. The yew trees were lashed right and left in a most wonderful way, but I had faith in their withstanding the wind, though I fully expected to find havoc had been played with the elm tree.

It was the culmination of the storm, for in a few minutes the glass began to rise and has continued to do so.

Fortunately for the house and its occupants, chimney and trees all weathered the gale. The elm tree has since been felled, but the yew trees remain.

To return to the building and its history. A little old-fashioned shop, under projecting oak beams, once occupied the greater part of the front, and beside it was a roomy living room with an open fireplace beneath the old chimney. Behind the little shop was a narrow parlour, containing a fire-place set in English 'Delft' tiles, and in the wall a pane of spun glass through which the interior of the shop could be viewed. In 1841, when the shop was enlarged, the little window was covered with canvas and papered over; and it remained hidden in the wall until 1922, when it was again uncovered, and the pane was re-set in a window beside the entrance door. Harrison's memory went back to the time when the pane of ancient glass served its original purpose.

As the centuries passed the house was altered in various ways. The outbuildings were added before 1772, for one Thomas Harrison, of whom something will be said later, in that year carved his initials and the date on a beam. A brew-house with a flagged floor was built in 1784, and, as already stated, the old shop was enlarged—though not beautified—in 1841. In this last-mentioned year a room was built over the shop. This room afterwards became the museum in which Harrison's collection of flint implements was kept.

The museum deserves a passing notice. Structurally it was of little interest, being merely an ordinary room, some fourteen feet square, which had not even the romance of great age. It was used for many years as a business storeroom, the flint

implements being kept in two attics at the top of the house. The act of conversion from store to museum took place in 1892 :

B. Harrison to E. Harrison.

Early in 1892

I have made many alterations in the storeroom, and it will now form a capital study, a retiring room, and a museum.

The museum was fitted with deep shelves on all its four sides, only the space occupied by the window and doors being left uncovered. On the shelves were placed the hundreds of boxes in which Harrison kept the greater part of his archaeological treasures—the remainder being housed in the attics. From the front of the shelves hung geological maps and sections, a model of the Weald of Kent and Sussex, water-colour paintings of flint implements, and portraits of several eminent anthropologists and geologists—including Sir Joseph Prestwich, Sir John Evans and Charles Darwin. A section of shelving also occupied the middle of the room from floor to ceiling for several years, but Harrison found this inconvenient and cut it down.

B. Harrison to W. J. Lewis Abbott.

23. 11. 1897

You call my museum unique. I thought it as well to carry out some alterations. The high shelving in the middle of the room has been taken down, cut in two horizontally, and the two parts placed back to back. These now form a table top, and give me a very spacious desk on which to display specimens.

It is a great improvement. I have had a copy of Sir Joseph's portrait framed. It forms a capital centre-piece, above the fire-place.

During the later years of his life, particularly after his retirement from business, Harrison spent many hours daily in his museum, conducting there his correspondence, sketching implements, labelling and classifying his finds, and showing them to interested visitors. It was his den, in which he did as he pleased, undisturbed even by the cleaner's broom and duster. He did his own spring cleaning of this room, as often or as seldom as he thought fit, and when he upset the gum or the ink there was none to upbraid him.



Photo by Wallace Christman, Shepherson

THE MUSEUM ABOVE THE SHOP

Mention has already been made of the two attics, which shared with the museum the honour of housing the collection of flint implements. One of these rooms was fitted with two low, fixed benches, dating from the time when village workers spent their days upon them, making smock frocks, before those useful and picturesque garments were discarded by the Kentish farmers.

The wooden outbuildings consisted of storehouses, stabling, and a cart lodge, together with a loft in the roof. It was on a beam in the loft that Thomas Harrison carved his initials in 1772, when he was sixteen years old. The lodge, which was at the end of the buildings farthest from the house, could be entered from without, even when it was locked up, by lifting a gate off its supports : and thereby hangs a tale.

It was in the early years of the nineteenth century. Thomas Harrison, grandfather of the subject of this book, was then about fifty years of age and was proprietor of the family business. He heard one evening in the winter that a gang of smugglers, on their way from the Kent coast to London, had passed through Ightham, hotly pursued by Revenue officers. A few miles beyond the village the smugglers were overtaken, but a search of their effects disclosed the possession of nothing unlawful. The suspects were allowed to go free, and the King's men retired, baffled and disappointed.

This incident must have created a stir in Ightham. Thomas Harrison can be imagined discussing it with his family round the big open fireplace before going a nightly round of his premises and retiring to rest. When, an hour later, he examined his lodge to see that all was secure, his stable lantern disclosed in one corner a heap of goods that certainly did not belong to him and were not there six hours earlier.

Thomas scrutinized this strange pile closely. It may have contained silks, tobacco, and other dutiable goods : it did contain brandy that had not passed through the Custom House. He knew how to keep a still tongue and he did not meddle with other people's business. Maybe he could have guessed the ownership of the pile, but even smugglers might bring trade to

Ightham and perhaps make purchases at his own shop. As for the Revenue officers, who would help a tax-gatherer? Whatever Thomas's train of thought may have been, he discreetly withdrew himself and his lantern and went to bed.

The next time he looked into the lodge, perhaps not too soon after his discovery, he found there his own belongings, but nothing more. No doubt he smiled to himself, perhaps he whispered his secret in the bosom of his family (else how could this tale be told now?), but to the world, like the tar baby, he 'kep' on saying nuffin'.

Christmas drew near, and on Christmas Eve when going his rounds as usual, the worthy Thomas noticed something lying in the corner of the lodge where he had found the pile of contraband. It was a small keg of brandy, the quality of which was vouched for by the lucky finder, who toasted the unknown donor during the Yuletide festivities. Further, it is said that Thomas Harrison found a similar gift in the same corner of the old lodge every succeeding Christmas Eve until his death in 1836.

The little parlour behind the old shop was used, in Benjamin Harrison's time, as a sitting-room. On the wall opposite the armchair in which he invariably sat was a barometer which he tapped almost every time he entered the room. The patient instrument probably suffered at least eighty thousand taps at his hands. It was outside the window of this room that Harrison stood on the eventful day, in 1881, when he was visited by Professor Prestwich and Dr. John Evans, and the latter rejected the 'corner stone.'¹

Harrison did not fail to impress with his personality an old-world garden which lay at the back of the house. In area it was small, but it was so divided by ivy- or fern-clad rockeries, shrubs, tall bracken and curving paths as to seem much larger than it really was. It was a green and shady place, where grew, in addition to the yew trees and the mighty elm, an ancient apple tree on which flourished a great mistletoe plant. Beneath this tree was a small plot of grass, which Harrison used on summer days for the display on trestle tables of his implements

¹ See *post*, page 131.



THE OLD BUILDINGS
where the Smugglers left the Brandy

when scientific societies included a visit to Ightham in a Saturday excursion. He had pleasant memories of such visits, not confined to the animated discussions which took place around the tables.

N.—23. 6. 1915. Standing under the old apple tree on which the mistletoe grows rampant on a branch in a state of decay,¹ I could but think of the many lectures given there to natural history societies during the past thirty years, and how a hearty laugh had been created by a reference to the mistletoe under which ladies were standing.

The plants and ferns which flourished in the garden had been drawn mainly from Kentish woods and hillsides—the spoil of the botanical rambles of early years.

B. Harrison to W. J. Lewis Abbott.

No date

I send you a few flowers from my garden. The periwinkle was secured in Knockmill pebble-bed wood in 1874; *tulipa sylvestris* at Ash in 1869—Plateau survivals.

A specimen of *osmunda regalis* was brought from Rose Wood in 1854, when Harrison discovered there the pit dwellings of the inhabitants of a neolithic village.² *Corydalis claviculata* (with its memories of Charles Darwin) came from Oldbury Hill. Other wild flowers to be seen—each with a history or an association—were the butcher's broom, woodruff, fritillary, dusky crane's bill, alkanet, tansy, red violet, stinking hellebore and sweet-scented butter-bur, whilst a number of beautiful ferns covered the rockeries.

Last must be mentioned the 'waste heaps'—consisting of several tons of flints, fossils, and curiosities brought to Harrison from all quarters by labourers and others whom he had urged and trained to search for implements. Stones of any value had been added to the collection in the museum and attics: the garden was the home of the specimens rejected by him as 'nature only' or as 'not good enough to be placed in the witness box'.

¹ Both apple tree and mistletoe died of old age in 1925.

² See *post*, page 41.

III

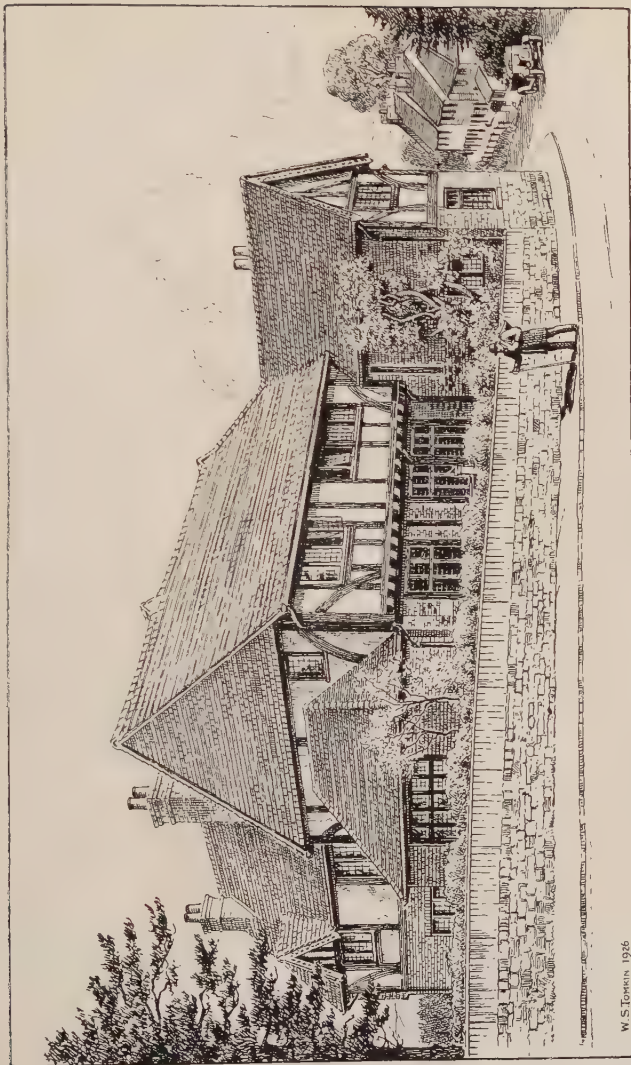
ANCESTORS

NOTHING is known of the paternal ancestors of Benjamin Harrison before the time when they became inhabitants of Ightham at the beginning of the eighteenth century.

The earliest title-deed relating to Harrison's old house and cottage is dated 1701. This deed describes the property as 'two severall dwellings in the severall tenures of Thomas Bright and —— Honey', and makes no mention of the name of Harrison. An entry on the fly-leaf of an old book, however—'Thomas Harrison, Draper, Ightham, 1710,'—both supplies the name of the most remote known ancestor, and indicates that he had come to Ightham by that year. Benjamin Harrison stated that he always understood that his ancestors took up their abode in the village in or about the year 1704, a statement that is consistent with the evidence both of the title-deed and of the old volume.

Entries in the Court Rolls of Ightham Manor, and in an old list of county voters, indicate that a Thomas Harrison was in occupation of the family property in 1729, 1741, 1754, and 1763. It is unlikely that all these entries relate to 'Thomas Harrison, Draper, Ightham, 1710'; the later of them may refer to a son. They, however, assist to carry down the record to the year 1778, when John Harrison, described as 'Mercer and Country Shop-keeper', the great-grandfather of Benjamin Harrison, occupied the property.

John Harrison, who in 1779 had advanced one hundred pounds on mortgage of the property of which he was a tenant, purchased the freehold in 1787. He was twice married, and had five sons,



HARRISON'S HOUSE AFTER RESTORATION

W S TOWN 1926

Thomas, John, Benjamin, William, and a second William, the first having died when young. He had in addition two daughters, both named Elizabeth, the first daughter having also died at an early age. John Harrison, the father, died in 1794. Of his sons, John settled at Seal, near Sevenoaks, Benjamin at Luton, whilst the eldest son, Thomas, grandfather of the subject of this volume, remained at Ightham.

Thomas Harrison succeeded to the ownership of the family property. He is described as 'Linen Draper, Ightham', and as his half-brother, William, is described as 'Draper, Ightham', it is likely that the two brothers carried on business in partnership.

Thomas Harrison was a homely and picturesque figure. Mention is made elsewhere¹ of his relations with a band of Kentish smugglers. His son employed a youth named William Lucas, who emigrated to America in 1838. Writing to Benjamin Harrison in 1887, Lucas stated, 'I see your grandfather Harrison washing his head at the pump, back of your old homestead. . . . Your grandfather's expression, when anything displeased him, was "*Convart* the man !" '

Thomas Harrison lived from 1756 till 1836. He had a family of six : Ann, Thomas, John, Elizabeth, Benjamin (father of 'Harrison of Ightham'), and Sarah. On his death his house passed to his daughter Ann and his son Thomas. Thomas the younger is described as 'Yeoman', and he evidently did not wish to change his occupation for that of a draper, for in 1839 he and his sister sold house and business to their youngest brother Benjamin.

Ann Harrison, known to the subject of this volume as 'Aunt Nancy', travelled occasionally to London. In the letter in which William Lucas described Thomas Harrison's ablutions, he also wrote : 'I seem to see your Aunt Nancy. . . . I think over the times when I by her orders took a loaded pistol and went to meet her as she came down from London by the coach at Wrotham, after dark.' Wrotham is between two and three miles from Ightham, and we also may 'seem to see' Aunt Nancy

¹ See page 21.

tramping along the dark road accompanied by her armed escort, glad of the protection he afforded her, but perhaps a little anxious lest his pistol should go off. Aunt Nancy's pistol has, fortunately, been preserved.

Ann's brother Benjamin, father of the archaeologist, was born in 1794. He was a man of a very practical nature and without humour, who never tolerated a joke. He read nothing save his bible. Although narrow in outlook he was a man of the strictest integrity, and he had a kindly and tender disposition. According to Lucas, he had a 'quick walk and pleasant face'. After his marriage, in 1826, he settled at Ightham as a farmer and cattle dealer. He was also steward to the Ightham Court estate, in which capacity he occupied the house in which his son Benjamin spent the first fifteen months of his life.¹

Early in 1839 Benjamin Harrison, senior, was persuaded by a cousin to join with him in buying the drapery business and the family property from his sister and brother, Ann and Thomas. This event led to his removal to the house which his infant son was to inhabit until his death in 1921. The business was extended to include the grocery and miscellaneous trade of a village general shop, and the ancient premises were enlarged to suit the altered conditions.

The new venture was not a success. The partner-cousin was bought out within two years, and thenceforward Benjamin Harrison, senior, traded alone, until, in 1867, he handed over control of his business to Benjamin his youngest son. He died in 1875 at the age of eighty-one years.

So much for Harrison's paternal ancestors. His temperament, tastes, and instincts, however, so far as they were inherited, came from his mother's side of the family. Accordingly, it is of interest to set down what is known of his maternal ancestors.

Edward Biggs, his grandfather, who was born in 1775, was a native of Walsgrave on Sowe, near Coventry, who removed to Woolwich in the early part of the nineteenth century. He was a very tall, rather fair man, straightforward, and pleasant

¹ See page 15.

in manner. His employees, whom he handled with the light touch of a man with a keen sense of humour, were very fond of him.

Biggs was trained as an engineer and, after settling at Woolwich, he invented several machines, including a dredger which, however, he neglected to patent. Harrison said that his mother would point out dredgers to him on the river, in the course of journeys by steam-boat which they made together from Gravesend to London, and would refer with pride to her father's achievements.

About the year 1826 Edward Biggs gave up his engineering work and removed to Borough Green, on the eastern confines of Ightham parish, where he bought a farm from Harrison's grandfather, Thomas Harrison. The two families became intimate, and Thomas Harrison's son, Benjamin, married Edward Biggs's daughter, Elizabeth.

The main roads in and around London were extensively macadamised about this period, and a considerable amount of Kent stone was used for the purpose. Biggs found on Oldbury Hill, west of Ightham, a hard sandstone, almost as durable as granite, very suitable for roadmaking. He began to quarry this stone, transporting it to the River Medway at New Hythe, whence it was carried in barges to London.

The stone lay on Oldbury Hill in huge blocks, which had to be broken up before transport was possible. A spherical mass of iron, about 300 pounds in weight, called a dumb dolly, was used for the purpose. After the stone works were closed, one of these dumb dollies was brought to Harrison's garden where it now lies.

The stone was carted to the place of shipment by local farmers, whose charges Biggs soon found to be excessive. Failing to obtain from them satisfactory terms, he determined to render himself independent of them. He accordingly had built, at Borough Green, a traction engine, one of the first to be constructed. The implied threat was effective, for the carters lowered their charges and the engine was not actually used to transport the stone.

Harrison stated that the great engine was a source of wonder to him when a boy. On his return from school he used to walk regularly to Borough Green to see the wheels and machinery, which were being constructed there by a local wheelwright.

Edward Biggs died at Borough Green in 1849, when seventy-five years of age.

Biggs's daughter Elizabeth, Harrison's mother, was a well-read, broad-minded woman, whose tastes and outlook differed widely in some respects from those of her husband. Between her and her son Benjamin there existed the bond of like tastes and interests. Harrison remembered with lasting pleasure the evenings spent with his mother during the later years of her life, when they sat up and read together after his father had gone to bed.

She delighted in historical literature, the novels of Sir Walter Scott and old plays—especially the plays, from which she was ever ready with an apt quotation.

Taught by his mother to be a reader, Harrison soon exhausted the home stock of books. There was a small lending library in the village of Plaxtol, some three miles south-east of Ightham. Harrison became a member of this library in 1853, obtaining from it many books which he and his mother read together.

In January, 1860, there was published the first number of the *Cornhill Magazine*, to which Harrison at once subscribed, and which he continued to take until his death in 1921, sixty years afterwards. The appearance of the current number of this magazine was a treat to which he and his mother looked forward, month by month, as long as she lived. When in her last years she developed cancer, the reading of the *Cornhill* helped to relieve many weary hours.

The last illness of Elizabeth Harrison brought out the best side of her husband's nature, and gave Harrison a new insight into his father's character. His mother died on 31 January, 1867.

For the sake of clearness, an abbreviated family tree is here given :

'Thomas Harrison, Ightham, 1710'¹
[probably grandfather of]

John Harrison, died 1794

Thomas Harrison (1756-1836) Edward Biggs (1775-1849)

Benjamin Harrison (1794-1875) = Elizabeth Biggs (1802-1867)

Thomas Harrison (1827-1897)	Elizabeth Harrison (1830-1922)	Edward Harrison (1832-) ²	BENJAMIN HARRISON (1837-1921)
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¹ See page 24.

² Date of death unknown.

IV

EARLY DAYS (1837-52)—AGED 1-14

BENJAMIN HARRISON was born on 14 December, 1837. He was the youngest of a family of four, his brothers and sister being Thomas, born in 1827, Elizabeth, born in 1830, and Edward, born in 1832. Tom exercised a considerable influence over his youngest brother Ben during the youth of the latter, and something more will be said of him hereafter. Ned had little in common with Ben, but seems to have inherited the practical nature of his father. He sailed for Australia at the age of twenty-two and never returned to this country. Although he always remained on cordial terms with Ben, their intercourse after Ned left England was slight, and he passed quickly out of the life of his brother.

Harrison's sister Elizabeth, whilst not sharing his scientific tastes, was a life-long devotee of her brother Ben. She lived nearly all her life in the neighbourhood of Ightham, dying in 1922 at the advanced age of ninety-two. She was an active, hard-working woman, who possessed a determined character. A single incident may be selected as characteristic of Betsy.

Wishing to get married, but fearing opposition from her parents, she left home suddenly, and the announcement in the press of her wedding was the first intimation her family received of the event. Her husband was not at once able to provide a home for his wife, who decided to return for a short time to the abode of her parents. This she did, appearing very early one morning before her mother had risen.

Betsy occupied herself with her former household duties until her mother appeared on the scene.

'Sorry, mother', was the greeting the latter received. 'I won't do it again'.

Notwithstanding the runaway marriage, the union was a happy one, and husband and wife lived to celebrate their golden wedding. When, after nearly sixty years of married life, the former passed away, a notice of his death appeared in a local newspaper, containing as many inaccuracies as the student's well-known definition of a crab.

B. Harrison to E. Harrison.

II. 1917

This week's paper contains a reference to [Mr. Tomkin's] death. It states that 'Mr. Stephen Tompkins, of Wood's Farm, was eighty-nine, his widow is eighty-eight, and they celebrated their diamond wedding a few months since.'

[Mrs. Tomkin] writes, 'He was not eighty-nine, I am not eighty-eight, he never lived at Wood's Farm, we have not celebrated our diamond wedding, and his name was not Tompkins.'

So much for newspaper accuracy. To return to Benjamin Harrison. He received his first instruction from his mother, but he was sent to a dame's school when still very young. He invented a number of excuses in order to escape his lessons. Two examples may suffice. On one occasion a fierce old hen was in front of the school door and he was afraid to enter. On another day he pleaded that the sanded floor of the schoolroom made his head ache.

The dame's school stage was soon passed and, early in 1845, when just over seven years of age, Harrison became a weekly boarder at a private school at Seal. The schoolmaster was a hasty man with an ungovernable temper, who behaved like a tyrant to some of his charges. His wife, on the other hand, was a kindly woman, revered by the boys, whom she protected from her husband's violence.

The distance between Ightham and Seal is little more than three miles, but the way ran for the most part through the lonely woods of Seal Chart. Harrison was not at first allowed to make the weekly journey on foot. He remained at home until midday on Monday, when he travelled to Seal in a baker's cart which regularly passed his parents' house.

Harrison's mother sent flowers weekly to the kindly wife of the schoolmaster. One Monday morning—18 May, 1846—news of her sudden death reached Ightham, and Harrison experienced the first real sorrow of his life. His mother was equally distressed, and the flowers, which had already been gathered, were placed in a cupboard, where they remained undisturbed for many years.

The loss of his wife seemed to intensify the schoolmaster's harshness. The weekly boarders were in touch with their homes and escaped the worst effects of his outbursts; but Harrison recalled with indignation, sixty years afterwards, his severity towards some orphan lads who had been placed in his charge.

Boys who were under notice to leave suffered most, and Harrison dreaded the ordeal which his last term would bring with it. But a kindly fate came to the rescue. In 1849 the school was removed to Riverhead, a village twice as far away from Ightham as Seal, and Harrison's parents took their boy away from the school without feeling called upon, in the circumstances, to give the usual notice.

Little information is available as to Harrison's educational progress at Seal. He is stated by an old schoolfellow to have been 'always at the top of the class'. He showed some signs of a love for nature study at an early age, and while he was at school at Seal he made his first recorded observation. A fast day having been proclaimed on account of the Irish famine of 1846, the boys were given a holiday and taken to the Chalk hills north of Seal. In a wood near Kemsing chalk pit Harrison came upon a number of snails, far larger than any that he had seen before. He found no one able to tell him anything about them. Many years afterwards he was chatting with a naturalist, who produced some shells of an edible snail mounted on cardboard. Harrison at once recognized them as identical with the species that he had seen at Kemsing when a boy. These snails flourish on the hillsides of the Chalk downs, and are said to have been introduced into this country by the Romans, by whom they were eaten.

The time spent by Harrison at school at Seal was the only period of his life during which he slept away from his home.

I have lived all my life at Ightham—he wrote—only sleeping away when at school between 1845 and 1849. Apart from this I slept away from home only three times.¹

Harrison was between eleven and twelve years of age when he left Seal. He was sent next to a British school at Platt, a village between two and three miles from Ightham, on the Maidstone side. He lived at home, walking daily to Platt and back.

The school was carried on by Stephen Constable, a kindly man and a good teacher. Harrison revelled in the altered conditions, and stated that the three years which he spent at school at Platt were amongst the happiest years of his life. Not only did he make good progress with his studies, but the influences that moulded his tastes and character were here first brought to bear upon him. It was while he was at Constable's school that he became seriously interested in the study of geology.

Harrison's schoolmaster and his elder brother Tom were close friends. They met frequently to discuss geological questions—a topic of interest to both of them. The younger brother heard something of what passed between them and became almost imperceptibly drawn to the subject.

In 1850 or 1851 Constable lent Tom Harrison Lyell's *Elements of Geology*. Ben seized the opportunity to read the book, and discussed its contents with his brother.² Although probably not yet appreciating fully all that Lyell had written, Harrison's keen interest was aroused, and he set about making a collection of fossils from the Chalk and other geological

¹ The three occasions referred to were, it is believed, two or three nights at Dover in 1881, one night at East Dean, near Eastbourne, in 1886, and a week-end at Purley, Surrey, in 1909.

² An interesting sidelight is thrown on the geological equipment of Thomas Harrison by a remark made in 1921 by a schoolfellow of Benjamin Harrison. He said, 'Tom came to see Constable. I thought Tom knew more than Constable'.

formations exposed in the neighbourhood. Nearly half a century later, when conducting Professor Prestwich to a river drift, near Platt, which Prestwich assigned to glacial times, Harrison told him of his search for fossils in a clay pit near the school. This incident is recorded in a note of 1895, when Harrison visited Prestwich—then an elderly man, nearing the end of his days—at his home at Shoreham, and finding him in a reminiscent mood, indulged in many recollections of past excursions taken with him.

N.—2. 10. 1895. An incident in connection with our first visit to Highlands [near Platt] was his introduction to the drift bed capping the water-parting between the Shode and the Leybourne stream, on the Gault at Park Farm. After we had examined this drift, he said, 'How long have you known this pit?' Pointing to a building at Platt, half a mile distant, I replied, 'There, sir, I went to school, and here was my introduction to Gault fossils, in 1850 or 1851, when I was troubled to account for this drift'.

In the summer of 1851 Constable hired a van and took a number of his pupils to see the dolmen of Kits Coty House. On their way the party passed a heap of fallen Sarsen stones lying in a field near Aylesford, and known as the Countless Stones. Like every one else who visits the spot where these stones lie, Harrison attempted to count them, and concluded that there were between twenty and thirty. At a much later date F. J. Bennett made a sketch plan of the stones, finding only nineteen in all.¹

Constable and Tom Harrison led the boys next to the bed of river drift at Aylesford on the Medway. Here Ben was an interested listener to a conversation between his master and his brother as to the means by which the great mass of gravel had been accumulated, and the time required for its deposit by river action. This conversation impressed itself vividly on his mind, and he afterwards made many excursions to Aylesford to note the composition of the gravel and to search for relics of man. It was not until thirty years after his first visit that he obtained a flint implement from the Aylesford drift.

¹ This plan is reproduced in *The Story of Ightham*, opposite page 48.

Following on this excursion, Harrison visited two school-fellows who lived at Dunks Green, four miles south-east of Ightham, in the valley of the Shode stream. A walk in the locality led to a discovery that was, no doubt, due to the impression made on him by the river drift which he saw at Aylesford. In a field to the south-west of the chapel at Dunks Green he found 'a vast spread of flint, Oldbury stone, ironstone and chert'. In other words he had discovered for himself a bed of gravel transported by the stream from higher levels and likely to contain some travelled relics of the past, including, possibly, relics of man. Although not yet fifteen years of age, he became interested in the Dunks Green drift, speculated as to its history, and endeavoured to trace its limits. An intimacy with the son of the proprietor of a neighbouring paper mill took him often to Dunks Green, and his later investigations showed that the gravel covered a wider area than he at first supposed. In it he afterwards found many fine palaeolithic implements—but the time was not yet.

The next geological problem to excite his interest, after the Dunks Green drift, was the problem of Wealden denudation—the question when and how the hundreds or thousands of feet of clay, sand, and chalk that once extended over the counties of Kent and Sussex had been removed, leaving exposed at the surface geological formations which were formerly buried deep down in the earth. Tom, who was his brother's leader in such matters, made a paper model of the geological features of the district, representing the various strata by the use of different colours. By cutting out the sheets so that the part removed from each represented the denuded area, and by placing the remaining pieces one over another in order, he constructed a graphic model of the super-position of the rocks and of their outcrops, successively, at the surface. Ben afterwards made similar models for his own purposes, and used them during the next half century when explaining to visitors the geological questions that arose in connection with his scientific work. Four sheets of sugar paper used in his business—white, buff, blue, and red—a pair of large scissors, and a bottle of gum were his materials.

He had an accurate recollection both of the outline of a map of Kent and Sussex and of the geological boundaries, and with these resources it took him but a few minutes to prepare for an interested caller a representation of all the features necessary to an understanding of the question of the denudation of the Weald.

Harrison's schooldays ended in 1852. Constable's influence on him was considerable, and the master lived to read of the discoveries which made his pupil famous. Writing in 1890 to another old pupil, Constable stated :

Ben owes something no doubt, to his brother Thomas, who from his boyhood found delight in the study of natural science, and this influence and example must have been very helpful to his younger brother. However, it is not special advantages but the spirit that is in him that has enabled our friend to attain such honours.

Early in 1852 a field lying immediately to the south of Ightham church, and belonging to Town House, in the village, was trenched. The digging disclosed a mass of masonry a little below the surface. There was a local tradition of the existence of a subterranean passage connecting the church with Town House, and an excavation was made in order to test the nature and extent of the discovery. An arched passage was uncovered, but it came to a sudden end.

Enough masonry was found to convince Thomas Harrison of the antiquity of the structure. He suggested that it was of Roman origin, and Ben searched the field closely, finding several Roman coins.¹

Tom utilized the opportunity afforded by the excavations to prepare a surprise for a future antiquarian. He made a lead token, bearing on one side a rudely carved head and, on the other the inscription, 'Thou fool'. He buried this spurious coin near the arches where, in all probability, it still remains.

¹ These coins were shown by Harrison to Canon W. A. Scott Robertson in 1871, on the occasion of a visit of the Kent Archaeological Society to Ightham. Canon Scott Robertson identified two coins, as follows : 'One . . ., having a female head on one side and a horse on the other, is a Macedonian (Greek) coin. Another, with very long points to the crown around the Emperor's head, is, I believe, of the reign of Claudius Gothicus (A.D. 268-270)'.

V

1852-60—AGED 14-22

THE health of Thomas Harrison caused his parents anxiety, and in 1852 the doctor recommended a sea voyage. Fortunes were being made at that time at the Australian gold diggings, and this fact, and the consideration that so long a voyage might restore his health, decided Tom to emigrate. He left England for Australia in May, 1852, and made his home near Melbourne, where he remained for the rest of his days.

It was the departure of Tom that brought Ben's schooldays to a conclusion. His occupation was determined for him by circumstances, and he entered his father's business.

Harrison's notes contain few references to his life as a trader. He performed his duties conscientiously, and continued to carry on his business—at first as assistant and afterwards as proprietor—for fifty-four years, but the commercial instinct was not highly developed in him, and his real interests lay elsewhere.

B. Harrison to W. J. Lewis Abbott. 18. 8. 1907

In my early days the shop was lighted by candles, with one lamp by the desk. There were no moderator lamps then, or paraffin. I, as a boy, had to march round the shop every four minutes with a pair of candle snuffers.

It is not every one who has had that experience.

It is convenient at this point to anticipate a little in order to explain briefly how Harrison carried on his scientific pursuits. The trade in which he was engaged required his continuous attention daily. Bank holidays and even early closing days were

unknown luxuries in 1852, and as, during the long half-century of his business life (1852-1905), he never took a holiday extending beyond a single day, except on two occasions,¹ his opportunities for systematic scientific study were of the slightest. He snatched from business an occasional hour or two on slack mornings during the week, and he sometimes managed to include a little field work in a business journey, but his archaeological excursions were in the main taken on Sundays, and (after 1871) on bank holidays. Wednesday evening became available after the introduction of early closing, and a little evening field work was practicable in the summer half of the year. Finally, he would often get up with the sun and devote an hour or two to science before business began for the day.

A list of the principal books read by Harrison while he was still a boy would include Gilbert White's *Natural History of Selborne*, Lyell's *Elements of Geology*, a number of geological papers in the *Family Tutor*, Hitchcock's *Religion of Geology* and Robert Chambers's *Vestiges of Creation*. Here is his own account of how he came to read the first of these books :

B. Harrison to ———

1905

About 1850 my brother Tom had a precious volume lent to him, the *Natural History of Selborne*. So careful was he of his book that he refused to let me have it to read. However, he taught a Sunday school class, and I took advantage of his weekly absences to go to his bedroom and read it—replacing it when I heard him return.

It was many years before I possessed a copy of this book, though it has been a mine of wealth to me, particularly as it set me observing and carefully noting things of interest in my own area.

The *Vestiges of Creation* was one of several books left behind by Tom when he sailed for Melbourne. This volume, together with Paine's *Age of Reason* and others of a similar character, he had scrupulously kept from his young brother. He packed the books in readiness for his voyage, but by some accident they were overlooked.

¹ The exceptions extended only to two days and three (or possibly four) days, respectively.

After Tom's departure his mother found this assortment of heterodox literature, and she and her youngest son examined the volumes together. She was not a little shocked at the contents. She straightway committed Volney's *Ruins of Empires* and Paine's works to the flames, but, at her son's earnest request, she allowed him to retain the *Vestiges of Creation*. This book Harrison at once read, noting the marginal comments of his brother and a friend, the one of whom was at that time a Methodist whilst the other had atheistic leanings.

Hugh Miller's *My Schools and Schoolmasters* was also read by him in his youth, but not till 1856. From *Cassell's Popular Educator* he acquired a considerable amount of general geological information.

The Family Tutor, a periodical that contained a series of geological papers, was read both by Tom and by Ben, before the former left England. Tom wrote to the Editor a letter suggesting that readers who were students of geology should exchange fossils collected in their respective localities. He worked out in his letter the details of a plan for carrying out his proposal so as to secure the best educative results.

Tom's letter was printed¹ with a commendatory editorial note, but not until the writer had left England for good. Its appearance was the signal for a large number of communications from other readers who welcomed the suggested exchanges of fossils. Tom's mantle fell on the shoulders of Ben, who dealt with the correspondence received, and in a short period of time acquired some fine fossils from the Coal Measures and other formations in exchange for specimens from the Chalk and Gault.

In 1854, two years after the departure of Thomas Harrison for Australia, his brother Edward followed him. Immediately before leaving, he paid a farewell evening visit to an uncle living at Nepicar, three miles east of Ightham. Ben accompanied his brother, and while the latter talked with his uncle a cousin produced books on wild flowers and ferns over which she and Ben spent the whole evening. Ben was delighted to recognize

¹ *Family Tutor*, Vol. 3, Appendix, Arts. 43 and 171.

at least a dozen of the varieties of ferns illustrated, and he promised to obtain specimens for his cousin.

This promise caused him shortly afterwards to make a fern-collecting expedition to the moorland of Rose Wood, a couple of miles south-west of Ightham. The area was in 1854 an almost impenetrable bog, and he described how, in his search for ferns, he jumped from stub to stub in his efforts to avoid plunging into the moorland pools. Amongst other trophies he brought home specimens of *osmunda regalis*, one of which he replanted in his garden, where it still survives.

Harrison stated that in the middle of the nineteenth century the hollow sandy lanes around his home were draped with ferns, especially *adiantum nigrum*. Similarly the limestone banks yielded the common hart's tongue and *polystichum aculeatum* in abundance.

Shortly afterwards, collectors for Covent Garden market invaded the district and stripped the banks of nearly all their choice ferns and plants; and, except in a few protected spots, the countryside became almost fernless.

Harrison's fern hunt led to a discovery of great interest. He noticed in Rose Wood a considerable number of basin-shaped pits, about fifteen feet in diameter and from five to ten feet deep. He also found a series of trenches or hollow tracks in the wood near the pits. What could these curious earth-works be? At the time he could only wonder, but about three years later he made a further discovery that enabled him to find an answer to the riddle.

His business duties took him to Maidstone nearly every week. There—'in the early fifties', he stated—he made the acquaintance of the keeper of a curiosity shop named Laplain. He seldom visited the county town without spending an hour in turning over some of the contents of the old-fashioned shop, which included several polished flint celts. He was allowed to see and to handle these implements, and in this way he obtained an introduction to the tools of the Stone Age.

The visits to Laplain's shop continued until 1857. In that year Harrison was one day watching the progress of some

drainage operations that were being carried out on land belonging to his father at Ivy Hatch—a short distance from Rose Wood. 'Old Bob Jessup', a workman, picked from an excavation a smooth flint, with the remark, 'Ain't it a queer one? It's like a whetstone'. Thanks to his visits to Laplain, Harrison at once recognized the stone as a flint celt.

The hint was enough for an enthusiast thirsting for knowledge. He made a thorough search of the field and the locality, and quickly found such an immense number of flint flakes that an explanation of the holes in Rose Wood dawned upon him. He had lighted upon an ancient village settlement, dating back to the Stone Age, where flint tools and weapons were actually made. The ground where the flakes were found represented the site of a workshop, and the basin-shaped pits were the dwellings of the neolithic people who chipped the flints. Subsequent investigations placed the truth of this inference beyond doubt.

News penetrated but slowly to country villages in the middle of the nineteenth century, and the scarcity of newspapers was referred to in letters written by Harrison containing his recollections of that period.

B. Harrison to W. J. Lewis Abbott.

No date

Sir Conan Doyle has sent me his book, *Through the Magic Door*. It is most interesting to me, the more so as my memory carries me back to the early fifties when I was a member of the Sevenoaks Literary Institute, and used to walk over every fortnight to exchange books. On leaving the Institute, I frequently went into the Black Boy inn to hear old George, a local character, read aloud the war news. The paper from which he read came to Sevenoaks by the evening coach. I happened to be in Sevenoaks on the day after the Alma battle, when Sebastopol was reported taken. Papers could not be obtained for love or money.

B. Harrison to E. Harrison.

27. 12. 1914

The enclosed¹ came this morning. I have written to the editor, giving particulars of my long connexion with the *South Eastern Gazette*.

¹ A request for a contribution to the centenary number of a local newspaper.

My memory goes back to the late forties, when my grandfather Biggs subscribed. The papers used to arrive from Maidstone about 11.30 on Tuesdays. They were brought by a messenger who went on to Sevenoaks. Later he used a velocipede, a wonderful thing in those days, the first I ever saw.

The farmers and residents sent lads to meet the messenger and obtain their copies. After my father and mother had read Grandfather's paper, I often took it to him at Borough Green.

We never saw a daily paper then, so picture the scene when the *South Eastern Gazette* came to hand, and every one was eagerly looking for the latest news from France and elsewhere on the Continent, where revolutions were frequently occurring.

The newspaper, being highly priced, was passed on by one to another, and it got well thumbed and a wee bit dirty by the time all had seen it. In the early days of the Crimean War we shared with a neighbour the *Morning Advertiser*, which he obtained, one day old, from a coffee shop. To see the state of it, all over coffee stains, was akin to seeing Tommies from the trenches to-day.

At the age of twenty Harrison had acquired a sufficient reputation as an antiquary to attract to his house visitors of a similar turn of mind. In 1857 two callers sought him in order to see the Roman coins that he had found in 1852, and a Samian dish which had been discovered beside a landway leading from Ightham Court to Oldbury Hill. This dish had been given to Harrison by the owner of the estate on which it was found, and it was presented by him to Major Luard (afterwards Luard Selby) of Ightham Mote.

Major Luard was himself an archaeologist from whom Harrison obtained many practical hints in his young days as to the positions of tumuli and other antiquities in the locality. He was at that time engaged in investigating the remains of a Roman villa which had been uncovered at Plaxtol, and Harrison was not only invited to assist in the investigations, but he shared in the joy that followed the finding on the site of a beautiful statuette of Minerva. In the account of the discoveries which appeared in the journal of the Kent Archaeological Society,¹ mention was made of Harrison's find of Roman coins,

¹ *Archaeologia Cantiana*, 1859, vol. ii. page 1. *On the recent discoveries of Roman remains at Plaxtol in Kent.* By Major Luard, R.A.

and the notice thus drawn to them led him to attempt to get them identified. For this purpose he called on the Rector of Trottiscliffe,¹ the Rev. C. W. Shepherd, a well-known collector. There he was introduced to the curate, the Rev. Isaac Taylor, who seven years afterwards published his classic work, *Words and Places*. Harrison valued this book not only on account of his acquaintance with the author, but for its great utility to him as a work of reference whenever the origin of a place name was in doubt.

The stronghold of Oldbury Camp, standing up boldly to the west of Ightham, the ancient stone circle of Coldrum, with Kits Coty House beyond it, and other antiquities in the neighbourhood all claimed his attention within a short period, and he became more and more a close observer of everything around him—provided it bore the stamp of antiquity—and a ‘snapper-up of unconsidered trifles’ of all kinds.

¹ Pronounced locally, Trosley, and so spelt as long ago as 1570.

VI

1861-5—AGED 23-27

DURING the years now under review, Harrison was passing through what he has called the 'wild flowers stage', that is, many of his walks were directed to spots where specimens of the rarer plants of the district were to be found. He had two or three friends whose interests were botanical rather than archaeological, and it was mainly in their company that rambles in search of orchids, ferns, and other wild plants were taken. But in no sense did he drop his archaeological work. He gave a smaller proportion of his time to it while the botanical influences prevailed—that was all.

There was another reason why, during a few years, archaeology occupied less of his thoughts than in earlier days or afterwards. His brother Tom, after leaving England in 1852, was so occupied with the anxieties incidental to starting life in a new country that, although he corresponded with his parents, he wrote little of geology and kindred subjects. After being in Australia for several years, Thomas Harrison obtained an appointment in the office of the Registrar-General of Patents at Melbourne, and it was probably the security afforded by this position that enabled him to turn once more to scientific work.

The fossils which Harrison obtained by exchanges, following the letter that Tom had written to the *Family Tutor* before he left this country, were for the most part despatched to Melbourne, and the specimens helped to keep alive Tom's interest. When, in the early part of 1863, he turned again to geology, he wrote to his brother to send him more fossils.

Thomas Harrison to B. Harrison.

5. 1863

I hope that you will not forget my geological specimens. I am trying all I can to get up a geological society in Melbourne, but no one cares for it here.¹ I have walked over 500 miles during the last two months, and find it improves my health wonderfully. I have written by this mail to Mr. Robert Dick, a friend of Hugh Miller, for a specimen of *pterichthys*. . . .

Try to get me all the fossils you can. There are plenty in the Chalk, the Greensand and the Gault. The last is the blue clay running along at the foot of Wrotham Hill past Aylesford and round to the coast. I will send you some of the Melbourne fossils, which are very curious.

I mean, if I live, to write an account of the geology of Melbourne, something after the style of the *Old Red Sandstone*. . . . Our rocks are very different from yours : we have no secondary formation at all.

The rocks around Melbourne are Silurian, very old, and in some cases capped with Pleistocene strata, which is one of the newest formations. So Melbourne, in all probability, was formed millions of years ago, then rising, it remained above the waters whilst the Old Red Sandstone, Coal Measures and Chalk were laid down. It afterwards sank and was covered with the newer strata : emerging from the sea a second time volcanoes broke out and deluged the surface . . . with a tremendous flow of lava. It is the decomposition of the latter rock which forms the rich soil of Melbourne. . . .

Tom also asked his brother to send to him regularly the *Geologist*, a magazine which had but a short life. Prior to 1863 Benjamin Harrison had found only implements belonging to the neolithic culture. He read in the *Geologist*, and elsewhere in periodicals which he bought for his brother, articles of great interest to him, including an account of the discoveries of implements of the older (palaeolithic) culture in the valley of the Somme, by Boucher de Perthes. These discoveries created something like a revolution in contemporary thought respecting the antiquity of man. Harrison not only grasped the significance of Boucher de Perthes' discoveries, he also applied his knowledge in making further explorations in his own district.

¹ The attempt was successful, the Geological Society of Melbourne having been started by Thomas Harrison in association with the Rev. Julian E. Tenison Woods.

Neoliths, he knew, were made and used when the surface of the country was more or less as it is to-day. Palaeoliths, the tools of a more ancient race, were not likely to be found scattered indiscriminately over the existing land surface : it was necessary to search for them in the gravels brought down in the beds of rivers, and representing the washings of ancient surfaces. Boucher de Perthes found palaeoliths in the gravels of the River Somme : Harrison would search for palaeoliths in the gravels of the Ightham stream, the Shode.

Where was he to begin his search ? Gravel had been dug in a field called Robsacks—less than five minutes' walk from his house—and he resolved to examine it. Before he could find time to do so the pit was closed. However, another gravel-pit was opened immediately afterwards on a neighbouring site—Furze Field or Heron Shaw—where, to his delight, he found a palaeolithic implement—in 1863.

He was about to forward to his brother a consignment of fossils for the Melbourne Geological Society, and his first palaeolithic implement went to Australia with the fossils.

Whenever he visited the Rose Wood district he was on the alert, and there, before the close of the year 1863, he found a second palaeolith. He picked it up at the head of the Buley valley, at an elevation of about 500 feet O. D., far above the level of any existing stream in the neighbourhood. He gave it to Major Luard Selby, who handed it over to the Kent Archaeological Society, and it now rests in the museum at Maidstone, together with many other implements found by Harrison.

At the time when he sent to Melbourne the first palaeolith which he found, Harrison had no definite intention of forming a collection of palaeolithic implements : the second find made him decide to do so, and although he gave away the Rose Wood specimen, it formed the first of a numbered record of his palaeolithic implements, with sketches, which he made as he obtained them. He made no list of the neoliths that he found.

To the *Geologist* Thomas Harrison contributed several

papers relating to Australian geology.¹ In 1864 this periodical was incorporated in the *Geological Magazine* under the editorship of T. Rupert Jones, F.G.S., and Henry Woodward, F.G.S. Benjamin Harrison wrote to the former, offering for publication papers written by his brother, and so initiated a correspondence that developed into friendship, and was terminated only by the death of one whom Harrison often referred to affectionately as 'Good old Rupert'.

Harrison was not the type of man to keep his growing knowledge from others, lest he might, perchance, lose the full credit of some discovery. He persistently trained workers on the land to recognize implements when they found them, and he tried to interest in his hobby every person with whom he came into contact who showed any inclination to listen seriously to him. His father employed an assistant who lived in the house, and between whom and Harrison there sprang up a friendship. This assistant was Robert Hilton, whose interest in archaeology grew rapidly, and who, after removing to East Dean, a village nestling amongst the South Downs, four miles west of Eastbourne, made a very fine collection of neolithic and palaeolithic implements from the Sussex hills and drifts. Writing shortly after Harrison's death in 1921, Hilton recalled the period when he was at Ightham as follows :

I lived with him for some twelve years. . . . We used to take our walks abroad together on a Sunday morning, fossil-hunting in the chalk pits around Wrotham. This . . . he was very fond of. It was before he began with the flint implements [as his regular hobby, but] he afterwards set me going finding stone implements on the South Downs.

The preceding account of the first twenty-five years of Harrison's life has been compiled from the notes which he has prevailed upon to make with a view to their being incor-

¹ *The Geologist*, 1864, vol. vii, contained the following papers from his pen :
p. 27. *Colonial Geology : Geological notes on the country near Melbourne, Victoria.*

Colonial Geology : Leaves from my Australian Note-Book :
p. 174. *Cape Schanck, its Basalts and Caves.*
p. 220. *The Eocene Beds of Schnapper Point.*

porated, some day, in a biography. During that period he kept nothing in the nature of a continuous record of events. Indeed, a few entries in pocket-books contain all the contemporary notes that remain. From 1863 onwards till his death in 1921 he kept in diary or notebook some record of the more important incidents of his life. Unfortunately, the notebook covering the years 1863 and 1864 is missing. It was lent to a friend (name unknown !), who omitted to return it.

Some of the contents of the lost notebook are enumerated in a list written out by Harrison on a sheet of foolscap at a time when he had the book before him. From this list it appears that he visited Kingsdown and the Tertiary pebble bed at Knockmill, both on the Chalk Plateau, Heathfield in Sussex, sections on the railway line at the northern entrance to the tunnel at Sevenoaks, Chatham, and elsewhere. There were also sketches of fossils and a note of the finding by Harrison of his first implement from the Chalk. It is unlikely that this note referred to the eoliths which he brought from Parsonage Farm, South Ash, in 1865,¹ and as it was not until 1885 that he found his first palaeolith on the Plateau, it seems likely that the 1864 implement was either a palaeolith from the base of the Chalk hills or a neolith. A dated sketch shows that he was at Kits Coty House on 21 September, 1864.

An entry in the missing notebook which relates to Harrison's first visit to Ash has been preserved in a letter :

B. Harrison to W. J. Lewis Abbott.

No date

I copy from my notebook the record of my first visit to Ash.

N.—10. 1. 1864. A journey due north in search of the nearest point where the Tertiary strata may be found. At the back of Ash church I found a bed of whitish sand, but, having been much delayed, I was compelled to retrace my steps. I called on Mrs. Rogers, who showed me all her curiosities, consisting of some 300 or 400 echinites, curious flints, conglomerate from the London Clay, etc. I promised to call again to inspect the indoor collection. Found in the old chalk pit near Stansted some fine sea urchins, one very curious flint resembling a white belemnite covered with small spines, and

¹ See *post*, page 55.

echinites with the oval aperture situate on the middle of the base—quite new to me.

There is considerable significance in this note of Harrison's first visit to Ash. Not only was Ash to take an important place in connection with his discoveries of flint implements, it was also the home of his future wife, for, five years later, he married Mrs. Rogers's youngest daughter. The call made at her house was a chance call on a stranger, and was due to his noticing the fossils which she had collected lying in the garden in front of her house. He was on a fossil-collecting expedition when he saw them, his visit to the Thanet Sand near Ash church having been undertaken in order to obtain fossils to send to his brother at Melbourne.

In a letter written in 1902, Harrison stated that, 'But for Melbourne, eoliths would not have been discovered by me'. This was true in the sense that the quest for fossils to send to Melbourne took him to Ash and Mrs. Rogers, and it was Mrs. Rogers who first pointed out to him the 'red' gravel at South Ash in which he found eoliths. This came about in the following manner.

When Harrison called at Mrs. Rogers's house on 10 January, 1864, her family were at church and she was cooking the Sunday dinner. She had no time to show the whole of her collection of fossils to her chance visitor, and, after letting him look over her out-of-doors specimens she invited him to call again, when she was more at leisure, to see the curiosities which she kept inside her house. A fortnight later he paid the second call and, no doubt, found Mrs. Rogers's collection of fossils of absorbing interest, for, he tells us, after the second visit he went constantly to Ash for nearly five years.

About May, 1864, Mrs. Rogers—who should surely share any honour attaching to the discovery of eolithic implements—asked Harrison the question, 'What makes the flints in South Ash Field¹ so red?' She added that these flints were very durable and had been used largely for road mending, stating

¹ South Ash Field was, in 1864, part of a farm owned and cultivated by Mrs. Rogers and her sons.

that 'thousands of tons' of the flints had been gathered from South Ash Farm.

Harrison visited the spread of 'red' flints and found them to be deeply stained, often much worn by rolling in water, and in some cases chipped round the edges. His knowledge of the river drift at Aylesford enabled him to infer at once that the stones had travelled in the bed of an ancient river. His nearest way to Mrs. Rogers's house took him across the patch of old gravel, so that he passed over it and examined it frequently.

On 10 April, 1864, Harrison saw for the first time the stone circle at Coldrum, near Trottscliffe. On that occasion he made in the missing notebook a sketch-plan of the stones and a record of the dimensions of the two upright stones of the dolmen.

At the time of which we are writing Harrison paid a number of visits to Rochester. His father or sister had occasion to go to London from time to time, and the nearest railway station was at Snodland, some eight miles from Ightham. He was accustomed, on such occasions, to drive his father or sister to the outgoing train and to meet the return train later in the day. He often passed the intervening hours by walking into Rochester and going to the top of the castle keep or listening to music in the cathedral, returning afterwards to Snodland on foot by a high terrace of the river Medway, past Wouldham Hall. When on these walks he collected fossils and made numerous observations respecting the denudation of the country by river action—observations which helped him to appreciate the character and extent of the work of natural agents on the surface features of the country.

An incident that happened on such a walk is described in a letter written many years afterwards.

B. Harrison to E. Harrison.

3. 8. 1911

On the Friday preceding one of my excursions to Rochester about the year 1864, a poor old woman came into the shop and literally fell back into a chair. I said, 'You are very tired'.

'Indeed I am', was her answer. 'I have walked from Portsmouth and am on my way to Chatham, where I formerly lived with my son who was employed in the dockyard. He was transferred to

Portsmouth, but he now has to return to Chatham. I dislike being there, for, as the old saying goes, every third house is a beer-house and every third man is a soldier'.

A day or two later, when returning from Rochester, I saw a very long roadside heap of flints. I passed along it searching for fossils, finding one that I now prize for the sake of the incident that followed. At the end of the stone-heap there sat the same old wayfarer.

I addressed her : 'You have had a long walk from Portsmouth and you have still a long journey to Chatham. You know that Chatham is not a desirable place to dwell in, for every third house is an inn and every third man a soldier'.

The old woman, who did not recognize me, was astounded, and I was master of the situation. Every time that I see the fossil I am reminded of the chance meeting.

Hidden in the hills at the upper end of a dry and deep chalk valley that runs up into the downs from Farningham is a hamlet called Woodlands. It contains little more than a large farmhouse, a tiny church and the vicarage, and beyond these, rolling open downs covered with turf and sprinkled with the daintiest Chalk flowers. The beauty and the seclusion of Woodlands could not but appeal to a man of Harrison's temperament. His walks brought him often to the delightful little spot and he soon made the acquaintance of the Vicar, the Rev. J. H. J. Handcock, who held the benefice for forty-seven years, until his death in 1907. In an undated letter to a friend Harrison wrote :

When I was geologizing in 1864, I used to go to Woodlands, examine the stone-heaps for fossils, and afterwards attend the church service. Later, I often took my children there, as it gave them a pleasant turn and me exercise. After I re-married¹ we continued to visit Woodlands church, always having afterwards a pleasant chat with Mr. Handcock, and a glass of wine and cake.

The date chosen by Harrison for the family excursions to Woodlands mentioned in this letter was usually a Sunday in September, when the blackberries, which were abundant on the hillsides, were ripe. The programme included a five-mile walk to the church, attendance at morning service, a few

¹ In 1879.

minutes at the vicarage, and a blackberry feast on the return walk. Occasionally a conveyance was hired for part of the outward journey, but it was always the walk back over the hills and across the fields that was looked forward to with the keenest enjoyment.

The making of a railway from Swanley Junction to Sevenoaks gave Harrison opportunities of examining a section of river drift that was exposed to the north of a swamp near Greatness, Sevenoaks. A deep section lying near the road from Seal to Sevenoaks, some 400 yards west of Seal village, also excited his interest. On 24 January, 1864, he walked to Sevenoaks railway station in order to trace a missing parcel of fossils from the Coal Measures which he was to receive in exchange for local fossils. When returning he examined the Seal drift, noting it as nine feet thick, and searched it thoroughly, but at that time unsuccessfully, for palaeolithic implements.

A tramp across country in search of fossils or implements is apt to stimulate the sensations of hunger and thirst, and one Sunday morning in September, 1864, Harrison and a friend called at the Artichoke inn, near Plaxtol, and asked for bread and cheese and beer. The inn-keeper—a woman—was unwilling to prepare the simple meal.

She was busy, she was out of bread and cheese, and, although we claimed to be travellers, she dared not serve us with ale during prohibited hours.

But Harrison was not to be put off. Taking a seat on a bench outside the inn, he wrote a set of verses describing the inhospitable treatment accorded to his friend and himself. This done, he knocked at the inn door, and, on the same sour hostess appearing, he read her the verses, declaring that if she continued obdurate he would send them to a local newspaper for publication. One of the verses ran as follows :

*If you're famished, faint and weary,
And with thirst are turning pale,
Think you not at this old hostel
They'll believe your Sunday tale.*

*Bread they're out of, cheese is scanty,
Tell to the marines your tale,
Mrs. Hostess (x) will not pull you
Half a pint of finest ale.*

'This', said Harrison, relating the story many years afterwards, 'worked the oracle, and we had our bread and cheese and beer'.

Harrison's notebooks and diaries for 1865 and subsequent years which, with few exceptions, have been preserved, contain regular entries of interesting events, and accordingly it now becomes easier to follow the course of his archaeological work. Other subjects occupy little space, but a virtuous resolution is here reproduced :

N.—10. 2. 1865. Fine, clear, frosty day. I resolve to raffle no more from this date—on no consideration whatever, and for no one's benefit, be he never so great a friend, or the prize ever so valuable and tempting.

N.—11. 2. 1865. Skinner has found a portion of a quern¹ made of pebbly conglomerate in the rampart now in course of being dismantled on Oldbury Camp.² The quern has a hole through it, and was used for grinding corn. The rock is foreign.

To the preceding entry Harrison added a later note :

N.—19. 10. 1912. Foreign, that is, to the Oldbury Greensand strata. In 1865 I had not sighted the pebbly conglomerate, though not long afterwards I found big blocks at Ash and near the old cottage by Peckham Wood.

N.—2. 4. 1865. To Holly Hill, via the Vigo inn and White Horse Pound gate. Holly Hill I found to be a mound about a furlong north of the escarpment, composed of round flint pebbles. Heaths, mosses, firs, holly trees, etc., grow luxuriantly.

Harrison regarded the name Holly Hill as a corruption of Holy Hill, and found some grounds for connecting the hill with the rites of the people who set up the stones at Coldrum stone circle.

¹ This quern is mentioned again on page 302.

² The rampart extending along the northern side of Oldbury Camp was levelled for agricultural purposes at this date.

N.—10. 4. 1865. To Herne Bay. I found a plentiful supply of fossils in the cliffs, but of too fragile a nature to be carried home. Found specimens of fossil wood and fruits, encrusted with a metallic substance smelling strongly of sulphur. Walked to Reculvers, but rain came on and prevented me from examining the ruins as attentively as I wished.

N.—8. 5. 1865. Walked to Horse and Groom inn and saw Blake, from whom I purchased a fine specimen of what appears like an eel, or something allied to it, enclosed in a very large flint. This flint was used for many years to add weight to a harrow. There are traces of fossil wood in the same flint.

This entry may be amplified from a letter of a much later date. By 1865 Harrison had become attached to the daughter of Mrs. Rogers, and a good many more visits to Ash took place than are recorded in the notebooks. Harrison would meet his future wife somewhere on the Plateau on a Sunday morning, and return with her by field paths to Ash, doing a little geological work on the way. Anything in the nature of a curiosity which Miss Rogers or her mother heard of they brought to the notice of Harrison.

B. Harrison to E. Harrison.

13. 7. 1906

The fossil which I sent to Sir Ray Lankester has a history. I learned from Mrs. Rogers of a wonderful fossil observed on a huge flint near to Woodger's farm. It was said to be 'like a lot of effets on the top, as if in stone'. Mrs. Rogers's son went with a wheelbarrow to the field in which they saw it, in order to fetch it home, but he failed to find it. Some time afterwards they saw it again in the field, but once more it disappeared, this time for ever.

I heard, independently, of a wonderful stone found by a stone-breaker, and I went to the hill-top and secured it, in a broken state. This turned out to be the block to which Mrs. Rogers referred. It had been used, year after year, to weight a drudge for meadows, and so was taken from one spot and left, after work was over, at another—hence its mysterious disappearances and reappearances.

It was really a *teredo*, a ship worm that bores into baulks of timber as do worms in old furniture. The timber becomes water-logged in course of time and sinks. In this case it became solidified at the bottom of the Chalk ocean.

On 22 May, 1865, Harrison found a 'spread' of ochreous gravel—like that on South Ash Farm—on Parsonage Farm, near South Ash, and brought home from this gravel two flints with chipped edges. He recognized them as coming from the bed of an ancient river, and he at first attributed the chipping to collisions with other stones when the flints were being rolled along by the current. He placed them in a box with some fossils, where they remained for many years. On 12 March, 1901, when overhauling his museum, he came across the two flints and advanced them to a place of honour in his collection as the first two eoliths that he had brought home from the Chalk Plateau.

N.—12. 6. 1865. To Nepicar, by way of the brick-field at Platt—found some beautiful ammonites and a fish's tooth. I have before visited this pit only in winter, but I find the summer by far the better season for collecting—the clay being washed away by the action of rain and leaving the fossils standing out in relief.

N.—1. 8. 1865. Dunn found a polished flint hatchet at the gravel-hole, Seal Chart, the apex finely chipped and polished. I presented it to Major Luard, who showed me all his collection.

The finding of this implement was followed by a letter which Harrison wrote to Sir John Lubbock (afterwards Lord Avebury) respecting the prehistoric relics found in the neighbourhood of Oldbury Hill. The correspondence so begun continued, at intervals, until Lord Avebury's death in 1913.

N.—13. 8. 1865. Not well. On sofa all day, reading Dean Stanley's *Palestine* and Darwin's *Voyage of the Beagle*.

N.—4. 9. 1875. To Baker's Farm to fetch a large flint that I had found and hidden on the previous Sunday.

N.—6. 11. 1865. To Kemsing chalk pit. Found nothing except a peculiar kind of scum, such as is sometimes seen in coke ovens or in ashes from lime-kilns. This scum was attached to the flints lying in the deep red Tertiary clay in the fissures of the chalk pit. The flints are quite black outside.

N.—26. 12. 1865. To Westerham and on nearly to Woldingham. Descended the hill at Oxted chalk pit, in which I found no trace of fossils, it being grey chalk. There is a curious example of drift on Limpsfield Common well worth a visit.

Harrison has said that he was impressed by the enormous spread of gravel on Limpsfield Common and by the apparent resemblance of the geological features to those obtaining in his own area at Oldbury. In each case he found an unwasted 'chunk' of Folkestone beds standing out boldly above the surrounding country.

In the course of the year 1865 Harrison became his father's partner in business, a deed of partnership having been executed on 9 August, in that year.

VII

1866-8—AGED 28-30

IN the year 1863 Harrison's mother developed symptoms of the disease that caused her death in 1867. Had she not been taken ill, it is likely that Harrison and his father and mother would have joined Thomas Harrison in Australia—a step that they had definitely under consideration in 1863. Harrison has said that the long illness of his mother, whilst curtailing the time that he could devote to archaeological exploration, by causing him to break away from the amusements of his youth, led to his devoting himself more thoroughly to scientific pursuits.

He continued to visit Ash frequently, and mention is made in his notes of excursions to Heathfield, in order to note the Wealden district; to Springhead, a journey undertaken to enable him to walk down the dip slope of the Chalk from the escarpment to the River Thames; and to Green Street Green, near Dartford, to see a section of Woolwich and Reading beds.

In order to obtain exercise and yet to sit with his mother as much as possible, he often rose very early and took a long walk before the usual breakfast hour. One Sunday morning, in 1866, he left home at three o'clock and walked over the Chalk Plateau to Cobham, Meopham, and the Charles Dickens country, returning to eight o'clock breakfast. He afterwards settled down in an easy-chair with a geological book in front of him.

The doctor, on calling in the course of the morning to see his mother, upbraided him for remaining indoors when he should have been out getting exercise.

'I have had a turn already, Doctor', he answered. 'I was out before breakfast'.

'Yes, yes, but a mile or so is useless. You should go for a ten mile walk'.

'Oh, well, I have been this morning as far as Cobham, Meopham, Ash, Stansted, Wrotham——'

'Good heavens', exclaimed his hearer, 'what an extraordinary man you are ! Well, if you have done all that, you certainly will take no hurt'.

The following extracts relate to the year 1866 :

N.—19. 3. 1866. To Otford Mount, and along the top of the hill to Kemsing. I found no trace of Roman work [in Kemsing] church walls, but about twenty yards to the west there is a considerable earth-work which I cannot understand, some six or seven feet above the level of the ground. Can this be the site of the temple we have heard of ?

N.—30. 3. 1866. Walked from Green Street Green to Dartford, via Betsham, Swanscombe, and Greenhithe. Upon the crest of a hill near Betsham, I found a stratum composed entirely of small bivalve shells and long conical gastropods. I was much interested in some of the sand-banks with the hatching of a bee. The beds of sand were perforated in all directions with small holes made by a bee somewhat like those seen hovering about the Michaelmas daisies in September. I obtained some of the cases containing the bee in embryo.

In June, 1866, Harrison was asked to conduct members of the Geologists' Association to sections on the South Eastern Railway at Sevenoaks that had been exposed in making the long cutting and tunnel through the Hythe beds south of Tubs Hill station. The attendance was disappointing. Only three members joined the excursion, and these, in Harrison's words, 'appeared more intent on a picnic than a day's practical field-work'.

N.—20. 6. 1866. Several members of the Geologists' Association came to Sevenoaks. After paying a visit to the Gault beds, we passed on to the ferruginous sands, to Riverhead sections, and to the railway works. In the Weald clay we found *potamides carbonarus*, the body

being beautifully preserved in a crystalline state. A meteor exploded near Boulogne ; the report was heard very distinctly at Ightham. Window frames shaken.

N.—2. 7. 1866. At 3.30 a.m. to Wrotham Hill, collecting fossils.

N.—1. 8. 1866. Descended two of the shafts into the railway tunnel at Sevenoaks, Nos. 12 and 13. Was very pleased with my visit and gained a good idea of what coal working must be.

N.—8. 8. 1866. The butcher, in driving home a bullock from Chiddingstone, had to place glow-worms on the animal's back—so intensely dark was the night that he could not see anything.

Happy the butcher who can find glow-worms at the right moment, when they are needed for such a purpose !

Harrison just missed seeing the meteoric display of November, 1866 :

N.—13. 11. 1866. Fine night, wind north-west, clear. To Borough Green : on my return I saw several stars shoot, some thirty or more in a very few minutes, but in consequence of the extreme cold I went to bed. Shortly afterwards they were plentiful, as many as fifty or sixty appearing in one minute : at four o'clock a perfect shower. Sorry I did not stay up later, as it was evidently a grand sight.

N.—31. 12. 1866. Crystal Palace on fire.

During the greater part of his life Harrison suffered from deafness in both ears. Although he felt the handicap imposed on him by this infirmity, he easily reconciled himself to his position, dwelling on his freedom from jury service and other civic duties and counting his immunities as compensation for his deafness. There is no doubt, however, that his restricted powers of hearing modified his activities in various directions. In particular, he was reluctant to speak at scientific gatherings, and he consistently declined to become a candidate for membership of any of the learned societies. In the last decade of his life his deafness increased considerably.

A note in a pocket-book fixes the period at which his hearing became defective.

N.—18. 10. 1866. Maidstone [Follows a list of articles to be purchased, including] hearing apparatus.

A later note has been added in Harrison's handwriting :

'This determines my deafness coming on in 1866.

The death of Harrison's mother on 31 January, 1867, and the domestic changes consequent on this event probably led to the relegation of archaeological matters temporarily to the background, for his notes of that year contain few references to the subject.

Visits to Ash were numerous. 'During my courting days', wrote Harrison at a later time, 'I made many observations on the Plateau, searching the plain by Ash church for neoliths, and finding there Oldbury stone. Like George III and the apple in the dumpling, I wondered how it got there'.

N.—3. 3. 1868. South Eastern Railway opened to Sevenoaks. Fares raised on the London, Chatham, and Dover line, and nearly all the third class carriages taken off.

N.—25. 5. 1868. In the evening rode to Ash, but, while I was letting the horse drink at the pond, the silly thing lay down. I, of course, slipped off; very wet.

There are very few references to politics in Harrison's notes. The following entries indicate his political 'colour'.

N.—10. 11. 1868. To Maidstone. Heard our Liberal candidate at the Star. A unanimous meeting.

N.—11. 11. 1868. Canvassing.

N.—21. 11. 1868. Polling. Conservative candidate returned.

The Sevenoaks election also interested him, but for a personal rather than a political reason: one of the candidates was Sir John Lubbock. He failed by a small number of votes to win the seat.

Harrison's notes consist almost wholly of dry facts. He expressed in them little of his thoughts and feelings. The 'courting days' mentioned above covered a period of four years between 1864 and 1868, but beyond a bare record of meetings with his future wife, and a note of the routes taken together,

on walks or other journeys, the entries contain little information. The following note refers to his wedding day :

N.—26. 12. 1868. Very fine day, sunny and mild. Started at 8.30 and walked to Ash. Married by the Rev. R. Salway at 11.15. Rode at once to Green Street Green,¹ dined, and had a look at the mounds in Darenth woods. Started for London at 3.15, Dartford station 4.5. Took lodgings at 5, Norfolk Street, Strand. Attended the Strand Theatre—*A Widow Hunt* (J. S. Clarke as Major Wellington de Boots), a roaring piece.

After a two days' holiday in London, during which the Temple Church, Westminster Abbey, St. George's Cathedral, Spurgeon's Tabernacle, the Tower, and St. James's Hall were visited, Harrison and his wife returned to Ightham.

¹ The home of relatives of his wife.

VIII

1869-71—AGED 31-33

HARRISON's marriage, in 1868, was quickly followed by an increase in his scientific activities. His wife, whose mother had herself collected many hundreds of fossils, had sufficient interest in her husband's work to encourage him to follow his tastes.

Rose Wood, his first hunting ground, was in 1869 let to a fruit grower, who built a greenhouse on land that had been recently cleared of trees, and in other ways disturbed the surface. Harrison took the opportunity to explore the ground thoroughly. He found great numbers of flint flakes in the earth thrown out when the greenhouse was erected. After keeping these flakes for several months he sent them to Sir John Lubbock who, on 17 November, 1869, wrote of them, 'They indicate a place of abode, and, wherever flakes are common, it is worth while searching for more interesting remains'.

Although Harrison had already found implements in the Rose Wood area, the receipt of this letter seems to have stimulated him to further search, and on 28 November he found there a well-made, barbed arrow-head. After sketching the arrow-head, he sent it to Sir John Lubbock who, in thanking him for the gift, expressed a wish to 'come over some day and have a few hours flint-hunting with you'.

N.—26. 1. 1869. To Basted. First game of chess.

Harrison was a fair chess player in his younger days. He played very little during the last thirty years of his life.

N.—28. 2. 1869. To Court Lodge, Home Field, Bird's Hill and home. To Oldbury Hill : found a curious plant.

It is likely that the 'curious plant' was *corydalis claviculata*, the climbing fumitory, to which reference is made elsewhere in these pages.¹ This plant grows on Oldbury Hill, and is sufficiently uncommon to attract the notice of a botanist.

N.—17. 5. 1869. At home all day reading Darwin's *Origin of Species*.

This was on Whit Sunday, and the day was 'cold, wind north'. Harrison was not fond of cold northerly or easterly winds, and the competition between a walk in a north wind and the *Origin* by the fireside was unequal.

N.—12. 7. 1869. Old Bob Jessup died in the night.

It was 'Old Bob Jessup' who found the neolithic implement in 1857 that was 'a queer one, and like a whetstone'.

N.—14. 11. 1869. To Rose Wood, examining the stones [removed in grubbing part of the wood].

N.—28. 11. 1869. To Raspit Hill and Rose Wood. Found a large quantity of flint flakes, and a beautiful little flint arrow-head.

N.—13. 12. 1869. To Rose Wood, where I found the herbage covered with rime, and beads of ice suspended on the trees. Found a quantity of flint chips on Ellsley's ground, even on nearly all the hillocks thrown up in the wood, as well as on the rabbit burrows. The pits are very numerous and deep. Flint flakes in great quantities are all over Bassett's field, and the adjoining plantation, and on the crown of the hill, as well as across on the opposite bank.

Found a dog caught in a trap—was bitten in releasing it.

N.—19. 12. 1869. Found, in Summers's field, Rose Wood, a small piece of British glass and half of a drilled quartzite hammer.

Twenty years afterwards he found the other half of the same drilled hammer stone, at a distance of about a mile from the spot where the first half was found.

At the end of this year—1869—Harrison, who had been in partnership with his father for four years, took over the full

¹ See page 372.

control of the family business. His father retired to the old cottage adjoining the house, where he ended his days.

In continuing his researches Harrison turned next to Oldbury Hill, probably being influenced in doing so by the contents of two letters which he received from Major Luard Selby.

R. Luard Selby to B. Harrison.

31. 12. 1869

... Regarding Oldbury, my impression always was that it was a British camp and not Roman, though the Romans may doubtless have occupied it, and your discoveries showing vestiges of the stone period in the immediate neighbourhood of the camp will confirm me in that impression. It is rather bold in me saying so, because Hasted says that without doubt it is of Roman origin.

There are several spots on the east side of Oldbury that I have constantly wished to have a dig in, especially a sandy mound nearly opposite Tebbs Farm, that was till recently planted with larch or fir. Digging in a likely spot is great labour and often ends in disappointment.

R. Luard Selby to B. Harrison.

8. 6. 1870

... Now with regard to Oldbury Camp. I think I ventured in a former letter my impression that it was decidedly a British camp. That it was afterwards occupied by the Romans, and permanently, is very likely, not only from its commanding position and fine spring of water ... but from the presence of Roman remains that one turns up in the immediate neighbourhood in every direction. With regard to my hypothesis of its previous occupation during the British (shall I call it the Celtic ?) period, your discovery of the remains of the stone period in these celts and flint chippings, as well as the unbaked pottery, would confirm it. I have more than once speculated on what appears to be an old road, but what I conceived might be earthworks, and they are on the side next Diplock's nursery.

Regarding the querns, I remember your showing me the fragment of a quern that you found on the north side of the camp. I do not suppose that the Celts grew much grain, still they could not have subsisted entirely on their herds, and most probably had querns.

With regard to your further researches on the northern boundary of the camp, agriculture is the greatest enemy the archaeologist has, and the plough is his ruination.¹

¹ The rampart on the northern side of Oldbury Camp had recently been levelled by the tenant of the farm on which it stood—see page 53.

About Mrs. Fielder's oven there could be no mistake—a decided interment of the cremation period. All these things tend to show that Oldbury and its neighbourhood must have been populous in olden times. . . .

If your brother-in-law would dig deeper in his barrow field [at Borough Green], I am sure he would be successful. The things formerly found there were of the Roman period. One of the urns, a very beautiful one, I sent to the museum at Maidstone.

Did I ever tell you of the old man who was working on the farm at the time? He was living at the public house on the left-hand side of the road beyond the Baptist chapel on the road to Maidstone. He secreted some of the things and took them home. Immediately he was taken ill. He thought it was a judgement on him and he went and buried the pottery in the garden. Soon after, he died, and the place of interment died with him.

The reference to 'Mrs. Fielder's oven' in the above letter is explained by Harrison's notes relating to this period. Ightham Common was being prepared for cultivation. In trenching the ground, the labourers destroyed a great number of mounds containing what they called 'ovens'. One of them described these mounds as follows: 'There were several stones, generally of iron sandstone, lying flat. On these were ashes, and round the sides were four stones, stuck upright and covered with another flat stone. On this, earth was heaped as if they intended to hide the oven'.

Harrison devoted more time to Oldbury and its neighbourhood during the year 1870 than would be gathered from the entries in his diary for that year—indeed, he seems to have concentrated his efforts on the ancient stronghold, and to have collected every relic obtainable from the camp or the immediate surroundings. Rose Wood, Ivy Hatch, Tyer's Knoll, Knight's ground, Fishponds and Styant's Bottom, which are mentioned in the following extracts, are all within a short distance of Oldbury Camp or of Raspit Hill, which he regarded as an outpost of the camp.

N.—2. 1. 1870. To Raspit Hill, and back to Rose Wood. The trenches and earthworks are deeper than I thought. Picked up a good many flint flakes, some of which are worked up very well.

N.—9. 1. 1870. To Ivy Hatch sand-pit, on the south-east side of which I found flint flakes and flints *in situ*.

N.—16. 1. 1870. To Ivy Hatch, where I found an unusual number of flint flakes.

N.—23. 1. 1870. To Tyer's Knoll ; found a considerable quantity of flakes.

N.—19. 3. 1870. At eleven p.m. ran to Rose Wood to fetch a celt found by old Terry.

N.—20. 3. 1870. Found a great quantity of flakes on H. Taylor's ground, and Golding's field.

N.—25. 3. 1870. Broke all my pipes and resolved from this time to smoke no more.

This resolution Harrison kept for some fifteen or twenty years, after which time he was persuaded by his wife to smoke again. He remained a smoker, thenceforth, until his death.

N.—13. 4. 1870. On Knight's ground, just below spring, in meadow, picked up a fragment of an arrow-head. Below Knight's house is a mound which struck me as being artificially raised. On searching, I found flint flakes in the sand thrown out in grubbing stumps of decayed trees.

N.—13. 5. 1870. A portion of a quartzite stone hammer found in loam pit at Fishponds.

N.—16. 7. 1870. Received from Sir John Lubbock his work, *On the Origin of Civilization*.

N.—31. 7. 1870. To Coldrum Lodge. I found a considerable number of boulders (Sarsens) lying scattered about in the adjoining fields.

N.—17. 11. 1870. To meeting at school : education scheme. Accommodation must be provided for 192 children—each child to have eight square feet.

The meeting referred to no doubt arose out of the coming into operation of the Elementary Education Act, 1870. The last words of the note are not to be read too literally.

During the year 1871 Harrison did a certain amount of fern-collecting, and he took some journeys in search of wild flowers, but his notes show that the serious work of his leisure hours continued to be the exploration of the Oldbury area. At the end of July he learned that the Kent Archaeological Society

proposed to visit Oldbury Camp, and he was very ready to respond to a request for information concerning the stronghold.

Rev. W. A. Scott Robertson to B. Harrison.

31. 7. 1871

I am greatly obliged to you for your most useful and graphic sketch. It seems advisable that I should come over again to Ightham and visit with you the basin-like pits. I believe them to be the site of a British village. . . .

The meeting will not be able to do much more than just stand on Oldbury, at the point . . . where I shall read my little lecture—but I have no doubt that a few of the visitors may like to avail themselves of your kind offer to pilot them over the camp and across to Old Soar—the greatest difficulty is that they would lose their luncheon.

The visit of the Society took place on 3 August, when Canon Scott Robertson gave an account of Oldbury Camp, Harrison exhibited his collection of flint implements, and Sir John Lubbock described the implements and explained their significance.¹ Sir John Lubbock came again to Ightham a week later, in order to make a more leisurely examination of the district. Harrison acted as pilot, and was pleased to receive, on the spot, confirmation of his view that the holes in Rose Wood represented the pit dwellings of people of the Stone Age.

He next searched the slopes of two large tumuli at Tebbs Farm and Tyer's Knoll. The tumulus on Tebbs Farm showed signs of having been previously disturbed, and he thought he might find something of interest there without actually opening the mound. His hopes were abundantly fulfilled, for he quickly found three or four arrow-heads, a polished celt, and a unique form of scraper so perfect in shape and workmanship as to support his conjecture that it might have belonged to a chieftain whose resting place was the tumulus.

From the second tumulus, at Tyer's Knoll, he obtained an oval scraper with a polished cutting edge—an instrument that he regarded as a sacrificial knife. Another mound close by yielded arrow-heads and a scraper, whilst from the neighbour-

¹ See *Archaeologia Cantiana*, vol. ix. pp. liii-lv.

hood of Rose Wood (but half a mile away) came arrow-heads, polished celts, drilled spindle whorls, scrapers and innumerable flakes.

The rocks near the crest of Oldbury Hill on its south-eastern side suggested the next place to be searched, for there was a tradition of an ancient cave having existed at that spot—before it was destroyed by quarrying operations. On examining the slopes of the hill below the site of the cave, Harrison found several flint implements, white in colour, with their surfaces much decomposed. Thinking from their appearance that they were older than the neoliths, he sent them to Sir John Lubbock who, however, did not at that time suggest that the stones belonged to the palaeolithic period, and Harrison remained for several years in doubt on this point.

A mile beyond Rose Wood is a hamlet with the suggestive name of Stone Street. Harrison examined the locality, and especially the ground around a knoll on which a house called Foxbury now stands. He found many implements, and also purchased an uninscribed early British gold coin which had been picked up in Pevensy Field, close by.

A search over the glebe land at Oldbury, below the rocks at Oldbury Warren and elsewhere in the vicinity, led to the discovery of more of the white implements. Their relation to the rocks above—where were the remains of a cave—struck Harrison as likely, and he classified them as the 'rock shelter series', concluding that they might be the tools of a race of cave dwellers who lived on the slopes of Oldbury Hill.

The following brief notes of the year 1871 include references to some of the events already mentioned :

N.—19. 3. 1871. At 4.45 a.m. to Ivy Hatch, Raspit Hill, and Oldbury Hill. Read Furley's *History of the Weald of Kent*.

N.—29. 3. 1871. Picked up a portion of an unbaked British jar in the long meadow, Basted.

N.—16. 4. 1871. At 5 a.m. to Oldbury Hill—very successful.

N.—10. 5. 1871. To Oldbury : a beautiful little flint ornament of oval shape was given to me by Bassett—found on his father's land next Seven Acres. It is the most delicate piece of workmanship I

have yet seen. 'To Russell's farther hop garden, but found scarcely anything.

N.—17. 5. 1871. 'To the British Museum. 'The coin found in Pevensey Field proves to be a British gold coin. 'There is only a drawing of such a coin in the museum.

N.—25. 5. 1871. To Rocky Hole cob-nut plantation, watching the rooks eating the caterpillars.

N.—26. 5. 1871. [A local fruit grower] is employing more than a dozen hands in catching caterpillars on the cob-nut trees. Two women hold open a piece of sack-cloth and a man shakes the boughs over it—the caterpillars are afterwards burnt.

N.—28. 5. 1871. Passed through Rocky Hole nut plantation and was surprised to see the great destruction wrought by the caterpillars—not a leaf or a shoot to be seen.

N.—3. 7. 1871. Arose at 2.45 a.m., and saw the sun rise from Oldbury Hill (Mount Pleasant).

N.—1. 8. 1871. To Seal Chart to meet Canon Scott Robertson, whom I found I had previously met in Maidstone museum when I took my flint chips there at the time of the dog show. With him to Rose Wood, Oldbury Camp, and back through the Warren.

N.—2. 8. 1871. To Ightham Court. Inspected Colonel James's antiquities found on Oldbury Hill, consisting of urns containing ashes, Samian ware, pateras and a bronze spear head which he classes as Roman but I consider British.

N.—3. 8. 1871. I exhibited my collection to the Kent Archaeological Society. A lucid description of the camp was given by Mr. Robertson, and Sir John Lubbock gave a most interesting little lecture on flints and flint implements. The party afterwards visited the Church, Town House, Ightham Court, Old Soar and the Mote.

Some of the party apparently decided to lose their lunches after all.

N.—11. 8. 1871. Hot again. Met Sir John Lubbock, his three sons and two daughters at Seven Wents. To the rocks and entrenchment, and afterwards to Rose Wood, where he stated that he saw no reason to doubt that the pits were ancient dwellings. They were of the same shape as those found in Wiltshire by Sir R. Colt Hoare.

N.—12. 9. 1871. With [a scientific friend] to Rose Wood and Oldbury. He spoke of a large bank of flints near Holly Hill, extending at least three quarters of a mile, and forty feet wide at some places.

N.—23. 9. 1871. Very sharp frost, white as a sheet. Smoke

ascended straight until it reached a certain height, when the whole of Ightham, Wrotham, and Borough Green smoke could be seen like a level platform. Rain followed.

N.—2. 10. 1871. Walked to Matthews's ground [Foxbury] and over Green's land. Found several flakes in next field but one to Green's house, and very curious coral-like fungus in Rose Wood.

N.—22. 10. 1871. In afternoon made a thorough examination of the pits in Rose Wood.

N.—3. 11. 1871. Grebe caught near Ightham a few days since.

N.—19. 11. 1871. To Stone Street. Inspected the pit dug for water-works on Matthews's farm (Robsacks) where he intends building a house : found a fragment of a celt about eighteen inches below the surface, and flakes, etc., close by. Chatted with Mr. Green who pointed out the spot [in Pevensey Field] where the British gold coin was found by him. Close by I found several flakes.

IX

1872-4—AGED 34-36

AN outstanding event of 1872 in Harrison's eyes was the coming into operation of the Bank Holidays Act of 1871, for the passing of which Sir John Lubbock was primarily responsible. So long as his shop was open Harrison remained on duty, and the effect of the new Act was, in effect, to give him for research work four additional days each year. How welcome those days were to him is evident from his oft-repeated words, 'Bank holidays were a godsend'. The date of the first bank holiday was 5 August, 1872, and his note of his movements indicates that the day was a full one.

N.—5. 8. 1872. By bus at 7.15 a.m. to Meopham. To Cobham, lunched with Uncle [at Strood], by train to Sittingbourne at 11.50. To Borden church (Norman arch and tower), Stockbury, Detling, Maidstone, Snodland, Birling, Ryarsh, Offham, (Norman windows, piscina, etc.). Supped with [a cousin at Nepicar], home at 9.15.

If the route taken is followed on a map it will be evident that the greater part of the distance was covered on foot.

Harrison kept for a few years a series of 'bank holiday note books'. These books contain a large number of pencil sketches of churches and of ancient houses and buildings in various parts of Kent and Sussex, and indicate that for some considerable time he devoted his bank holidays principally to long-distance excursions. Amongst the churches sketched were Ash, Hartley, Meopham, Cobham, Borden, Detling, Birling, Offham, Ryarsh, Leeds (Kent), Brightling, Eynsford, Farningham, Swanscombe, West Peckham, Burwash and Etchingham.

He also made numerous excursions in quest of wild flowers.

Notwithstanding the counter attractions of church architecture and botanical rambles, the notes of these years indicate that archaeology was not neglected.

N.—21. 1. 1872. To Ivy Hatch and Pevensey Field. On the latter I found several implements.

N.—27. 1. 1872. Mr. Bigge and Captain Luard, on Boxing Day last, in searching near the newly-discovered door in the hall at Ightham Mote, found a corresponding aperture further along, and in it a perfect skeleton of a woman in a sitting position—bricked in, perhaps when living.

N.—1. 2. 1872. To London. Tried to get into the Westminster Sessions House to hear the trial of the Tichborne claimant, but failed. To the Christy collection, 103 Victoria Street. A curiously dressed old gentleman came in—seemingly a breed between a bishop and a quaker : broad-brimmed hat, drab alpaca coat over drab cloth, striped hose and low shoes with buckles. Said he had been a school-fellow of the late Mr. Christy.

N.—6. 5. 1872. To Pevensey Field, found a pretty little arrow-head.

N.—30. 6. 1872. Bright morning, arose at four. To Addington at 7. 30. On to Coldrum Lodge and inspected the druidical circle. To Birling Lees, descended the pit on the summit and explored the chambers. On to Holly Hill, the view from which is obscured by trees, but on the ridge field we had a most extensive view towards the north-east, including Rochester—castle, bridge and cathedral—Sheerness, and the *Great Eastern* steamship ; and towards the south and south-east, the Wealden ridge to Tenterden.

N.—30. 9. 1872. Arose at 6. To Gibbet Field : arrow-head. At 9 to Foxbury, where I found an unfinished arrow-head.

N.—4. 11. 1872. Walked to Stone Street and thence to Rooks Hill, taking the course of the old, abandoned road from Stone Street to Buckland (Budds). It passes down close by the two houses at Wimlet Hill.¹

At 1.30 to Cotman's Ash and to Lee's Wood—found the entrenchments. The wood was too thick for me to follow all the way but I found the banks to be about two feet and a half high, composed of flint and earth.

N.—10. 11. 1872. To Royal Oak windmill, Little Comp, and

¹ Or Wilmot Hill.

inspected Stone's land. Flakes were very plentiful. Found a rude celt.

N.—17. 11. 1872. Examined the newly-trenched land at Rose Wood but found naught. In afternoon and evening read *Prehistoric Times*.

N.—25. 11. 1872. Portion of a celt from Frankfield.

N.—8. 12. 1872. To Highlands railway cutting, where we found five bats in a cave, and succeeded in bringing away four.

N.—5. 1. 1873. Walked to Rose Wood: two stone balls and scrapers. To Crown Point: several pieces of worked flint, and two scrapers in Russell's hop garden.

N.—10. 1. 1873. Owing to the excessive rainfall, the land springs above New House Farm burst, and a vast quantity of water flowed out, completely flooding the adjacent fields.

New House Farm lies to the north of Ightham, below the Chalk escarpment. The springs occur at the junction of the Chalk and the underlying Gault clay, and form the source of one branch of the Ightham stream, the Shode.

N.—13. 1. 1873. Started at 6, and walked to Snodland, on [by train] to Strood, breakfasted with Uncle and visited Mr. Roach Smith. Walked over to Rochester, thence to Cuxton, Halling, Holly Hill, Trosley Hill and on to New House Farm to see the spring lately opened above the road. I was nearly be-mired.

N.—25. 2. 1873. To Kits Coty House and the heap of boulders below, which, after counting six times each, we finally made to be twenty-one. In the inn by the bridge at Aylesford, we had the best bread and cheese in the cleanest inn I ever saw.

N.—30. 3. 1873. Found two scrapers on Stone's land at Comp. Nature all alive: three lizards, two snakes, three terns, beetles, fishes, etc.

N.—3. 4. 1873. Found two scrapers and a piece of pottery in Long Meadow hop garden and Lime Kiln Field.

N.—11. 4. 1873. To Eynsford Castle. Wall fallen down but not broken up, fallen as a set of volumes would fall, and inclined five feet.

N.—13. 4. 1873. Walked to Old Soar farm house, a residence of the Colepepper family, said to have been erected in the thirteenth century.

N.—20. 4. 1873. To Single Beech *via* Fishpond Bottom. In the road above I found a cannon ball.

The cannon ball had a history, which was related in a letter written many years after it was found :

B. Harrison to W. J. Lewis Abbott.

No date

Mr. Cazalet of Fairlawn showed me over his house. . . . In his room I espied a cannon ball in a place of honour. My eyes were riveted on it, and he remarked, 'That cannon ball was found in the old stables, a building that was formerly the banqueting hall. We cannot account for its being there'.

'May I suggest its probable history ?'

'Pray do'.

'Well, when England was in fear of invasion by Napoleon Bonaparte, shortly after 1800, my father, who was a boy at that time, used to sit in the large beech trees by Tebbs Farm and watch the artillery from Sevenoaks practising firing at a target placed on the slope of Raspit Hill. Some thirty years since, I was walking with some friends past the fishponds and I saw something bright in the track. I knelt down, and with my pocket-knife unearthed it, finding it to be a cannon ball, the size of this one. On my showing it to my father he recounted the story of the 'Boney' scare.

'No doubt when Mr. Simpson planted the land with Scotch firs, about 1830, the cannon ball was found, and it has been preserved as a curio'.

N.—16. 11. 1873. Walked to Seal. Inspected the railway cutting at Child's Bridge—a thick bed of drift. Past Rowdow, above which we turned into a field to the right to look at what appeared to be earth-works : deep pits, filled with water. To Woodlands, and past Knockmill to Kingsdown church—a curious old building with horrid windows. Old oak at South Ash.

N.—26. 12. 1873. To Meopham church, a well-proportioned building. The chancel and nave are not in a line : the former appears to be the more ancient, to which the body of the church has been added, and built askew.

The progress of Harrison's exploration of Oldbury Camp is indicated by a letter written by him to Dr. Evans in 1874, in which he gave a list of his finds there down to the date of writing.

B. Harrison to John Evans.

18. 10. 1874

The following particulars of the implements found at Oldbury Camp may be of interest :

About eight entire celts and a considerable number of broken ones ;

Some fifty or sixty scrapers ;
About twenty stone corn-crushers ;
Six drilled hammers ;

Arrow-heads—leaf-shaped, triangular, stemmed—ten or twelve :
some most delicately worked, and two especially so ;

(Lately I have obtained more specimens, but these are not so good
as the first set.)

Flint awls—one, awl and scraper combined ;

Hand rubbers for polishing ;

Curved implements for chipping ;

Spear points ;

etc., etc.

Each walk I take convinces me more strongly that Oldbury must
have been a very important stronghold. Every plot of land brought
into cultivation discloses something interesting, and before the
eastern side was quarried for stone the hill was so strong a position
that it might be called the Gibraltar of Kent.

The above list of finds was very greatly increased after 1874,
particularly in 1890, when excavations were made beneath the
rock shelters. Although it was during the years with which we
are now dealing that Harrison concentrated his energies upon
Oldbury, he continued to find relics of one kind or another
upon the hill until his death, whilst since 1921 several British
gold coins have been found there. As the greater part of the
camp is woodland, there are no doubt many relics still undis-
covered.

N.—8. 2. 1874. Walked westwards along the railway line, and
examined some large blocks of Oldbury stone lying on the Gault
close to Romney's Wood. These appear to have been placed in order,
forming an avenue, but they may have been drawn to the outside
of the field, as in another field not far away. Walked by the line to
the Chalk pit road, then ascended to Rowdow, and returned along
the crest of the hill. Below Aldham I saw a large boulder stone.

N.—22. 2. 1874. Walked to Single Beech. Found several small
specimens of *scolopendrium* and *polystichum*. Brought home also
helleborus viridis, now coming into bloom. Crossed the Mote stream,
and followed it to its source—a genuine hill bog, well worth inspec-
tion.

N.—2. 3. 1874. Arose at 5.45. Finished reading the Tichborne

trial. At nine o'clock to Basted Lane quarry, thence to Borough Green, thence by the railway line to church. At 1.30 to Oldbury Hill searching for *lycopodium*, which I did not succeed in finding. Walked to Kemsing and by the line to Cockney's Wood. Saw a great heap of slow-worms, snakes, red adders and efts, all of which (sixty-three) were found in an active state, coiled round one another in a hazel stub. Secured a *ceterach* from wall and *ruta muraria* from church.

The attraction of the railway line—references to which appear in several notes of this period—was due to the fact that the sections made in constructing the railway were newly cut, and afforded an opportunity for examination of the drifts which passed away as the banks became covered with vegetation.

N.—20. 4. 1874. To Ash, and over to Ridley. Found wild tulips growing near.

N.—6. 5. 1874. To the new brickfield opened on the site of old Wrotham Pottery. Called on Mrs. Broad and saw some curious old china plates.

N.—14. 6. 1874. To Staplehurst. We had a delightful walk, passing a pretty flour mill and a very old-fashioned house with handsome gable ends. Near here we inspected the best specimen of a bog I have yet seen. The springs are strongly impregnated with iron, and the colour of the bottom is of the deepest orange. On our stamping on the ground, air bubbles came up some six yards distant, showing, as I thought, the carbonic acid gas escaping from decomposed vegetable matter beneath.

N.—23. 8. 1874. Arose at five, and walked by way of Basted Lane to Crowhurst. The valleys everywhere were in a dense fog, which, with the sun upon it, had a very pretty effect. Read Tyndall's Address to the British Association.

N.—13. 9. 1874. To London. In the afternoon to Westminster Abbey: Canon Kingsley. So crowded that I could not hear a word.

X

1875-9—AGED 37-41

HARRISON's notes for the years 1875-9 are comparatively bare of records of archaeological activities. During that period he devoted a good deal of his leisure to botanical rambles and to a search for the less common varieties of ferns, the latter often in the company of an intimate friend, Charles T. Druery,¹ who made a life study of British ferns and acquired an extraordinary knowledge of the subject.

Harrison's time and his thoughts during these years must have been fully taken up with domestic matters. His father died in 1875 at the age of eighty-one, and the settlement of his affairs, which necessitated references to Harrison's brothers in Australia, involved much work extending over a period of about twelve months. Towards the end of 1876 his wife became dangerously ill, and to his great grief she died on 1 January, 1877, leaving him with a young family. He was a widower for two years and a half, and remarried on 2 June, 1879.

Oldbury Hill and Rose Wood continued to attract him, though less frequently than in earlier years. But he was beginning to move, perhaps almost unconsciously, away from the relics of Oldbury Hill and its vicinity to the still older remains of man that are to be found in the river gravels. He had known of the existence of the palaeolithic implements of the drifts for many years, but he did not devote himself principally to that branch of archaeology until a period that may be said to have begun about the year 1878.

¹ Charles T. Druery, F.L.S., V.M.H. ; author of *Choice British Ferns*, *The Book of British Ferns*, *British Ferns and their varieties*, etc.

B. Harrison to E. Harrison.

4. 6. 1916

I took *Chambers' Journal* in the late seventies, for some years. It proved especially interesting, for there I met with particulars of British Association meetings, etc., and so got into touch with Figuier's *Primitive Man*.

At that time, too, Druery came into my world. He proved an admirable companion and teacher, coming, as he did, every moonlight Sunday. I felt sorry, when he married, to lose such a tutor, but just as he gave up coming¹ I made the acquaintance of Charles Knight, and we took many botanical rambles together—on Sunday, in spring and early summer when the orchids were in bloom.

In search of rarer specimens, which grew in East Kent (near Hartlip), we made many annual pilgrimages. These expeditions gave me a good grasp of the Plateau area, for I noted particularly the dry valleys on the eastern side of the Medway. We varied our routes, and sometimes alighted from the train at Rainham or Newington, approached Hartlip by cross tracks and then went on to Boxley or Thurnham, and so I got an introduction to the configuration of the country below the Chalk hills.

One day especially comes to my mind—a day that included a walk down Boxley Street, beside a freely flowing stream chattering on its way. This was the brook that took the attention of Tennyson.²

*I chatter over stony ways
In little sharps and trebles,
I bubble into eddying bays,
I babble o'er the pebbles.*

On a later visit we found the stream enclosed in pipes.

N.—28. 4. 1875. Walked from Swanley via Crockenhill and Well Hill, to Shoreham. The view from Well Hill is very extensive.

This was Harrison's first visit to Well Hill, a 'fragment of an ancient denudation' of great geological interest.

N.—9. 5. 1875. Walked with Knight from Sevenoaks to Basted Hill, where we were fortunate enough to find several plants of *lathraea squamaria* and one plant of *paris quadrifolia*.

N.—24. 5. 1875. To Hartley Wood. Found *orchis fusca* and bird's nest (*epipactis grandiflora*).

¹ i.e. coming regularly. Visits took place, though much less frequently, until the twentieth century had opened.

² Tennyson resided for a short time at Boxley.

- N.—29. 8. 1875. With Mr. G. O. Trevelyan to Oldbury Camp.
 N.—5. 9. 1875. To the bog near Hall Farm, searching for sundew.
 N.—10. 10. 1875. Arose at three, left home at four, drove to Tonbridge, walked to the new station at Tunbridge Wells, and took train to Lewes. Walked to Mount Harry and returned by the edge of the downs to the Offham road, across the bridge to Cliffe, thence past the Barrows to Mount Caburn, and back past Oxteddle Bottom. Found that my return train had been taken off, so hired a trap and had a pleasant drive through Cuckfield to Crowborough. Home at 10.30.

In reading through Harrison's notes of his excursions, it is amusing to notice the number of times he missed a train, or found that a train by which he counted on travelling 'had been taken off'. He not infrequently consulted an out-of-date timetable when planning a journey. He also missed trains either because he allowed too little time to catch them, or because he turned aside at a point of interest, when on his way to a railway station. When an accident of this kind happened he quickly revised his programme, often adding thereby a few miles to the distance walked, but usually 'tacking on' some new feature that was worth a visit.

The year 1876 possesses a special interest as in that year he first saw Professor Joseph Prestwich, the eminent geologist who was afterwards to make known in scientific circles Harrison's discoveries of primitive flint implements. Prestwich had his country house at Shoreham (Kent), and Harrison went over to the village to join in the welcome to Lieutenant Vernon Lovett Cameron on his return home after making the first crossing of the continent of Africa from east to west. Prestwich was pointed out to Harrison on that occasion, but it was not until 1879 that they actually made each other's acquaintance.

N.—4. 4. 1876. Lieut. Cameron's return to Shoreham from Central Africa. First sight of Professor Prestwich.

N.—18. 12. 1876. Parcel of books received. One was *Geology in the Garden*. I at once read it, and it proved interesting and instructive. Being founded on Prestwich's *The Ground beneath us*, it gave me the best possible grasp of the Thames valley and trough.

Harrison's interest in ferns and wild flowers was enhanced by the possession of a microscope, with the aid of which he was able to make a close examination of the structure of specimens and to give his young children many an evening's enjoyment. Their walks with him were always walks with an object—to find the scarlet-tipped moss on Oldbury Hill, the round-leaved sundew in the bog on Hall Farm, lily of the valley at Seal Chart, and so on.

His early rising habits may occasionally have been a little embarrassing to his friends.

N.—1. 7. 1877. Arose at 3.30. Walked to Shoreham. Called up Loveland¹ at 5.30 and persuaded him to return with me.

Other notes of the year 1877 include the following :

N.—1. 1. 1877. My dear wife passed away. . . . The storm to-day was one of the first magnitude. Large blocks of stone weighing over twenty tons were washed over the Admiralty pier, Dover, and across the harbour.

N.—4. 3. 1877. Reading *The Childhood of Religions*.

N.—21. 5. 1877. To Queensdown Warren. We found that the whole was enclosed by newly-tarred fences, and large flocks of sheep had eaten off all the vegetation so closely that few orchids could be found. We returned by way of the hilly road. On our way I noticed a remarkable earth-work to the left ; we wended our way to it and found it to be an immense British barrow surrounded by a deep ditch, the sides covered with *polystichum angulare*, in fact there were hundreds.

N.—5. 8. 1877. To Oldbury. I regret to find that, for the purpose of erecting an oast house, all the fine stones lying in [Oldbury] Warren and the immense block at the entrance to the north-east corner of the camp have been broken up.

N.—23. 9. 1877. Obtained a flint flake at Seal Chart.

A bog on Hall Farm, to which Harrison resorted periodically in order to obtain specimens of the fly-catching plant, *drosera rotundifolia*, was several miles distant from Ightham, and he endeavoured to establish the plant nearer his home. A pond on

¹ Mr. Isaac Loveland, an old friend and schoolfellow.

Oldbury Hill, called the Waterflash, was supplied by a streamlet that percolated through a morass behind the pond. This morass was little visited, its boggy character being its protection. On 10 September, 1878, he recorded a visit to the Waterflash, where he 'planted the *drosera*, club moss and bog asphodel, close by a stub.' The Hall Farm bog has long since been drained; the hinterland of the Waterflash remains, more or less in its primitive condition.

In the autumn of 1878, William Davies, of the British Museum, a geologist, spent a holiday at Ightham, and quickly made Harrison's acquaintance. After some walks taken together, Harrison showed his collection of flint implements to his visitor. These implements consisted principally of neoliths, but included specimens from the Oldbury rock shelters, which Harrison had suspected were older, though no archaeologist to whom he had shown them had suggested that they belonged to an earlier age. Mr. Davies, on seeing them, at once declared that they were palaeoliths—products of the older Stone Age.

Shortly afterwards Worthington Smith,¹ who was already a correspondent of Harrison's, called to see his collection. On examining the white rock shelter specimens, he also expressed the view that they were palaeolithic, but after returning home wrote withdrawing his opinion, on the ground that palaeoliths were ochreous in colour.

These conflicting views placed Harrison in a dilemma. He was far too interested in the implements to let the question remain in doubt, if it could be cleared up, and he resolved to take the specimens to Sir John Lubbock for an opinion. But Sir John was at that time in Algiers, and it was not until two months later that Harrison received from him the welcome verdict, 'I think some of the implements are certainly palaeolithic'. From that time onwards Harrison devoted less of his attention to neoliths, and turned his thoughts more and more to the remote period represented by the relics of palaeolithic man.

¹ Worthington G. Smith, F.A.I., F.L.S., author of *Man the Primeval Savage*, etc.

N.—24. 3. 1878. To Heverham, and along the crest of the hills to Otford Mount. The day, which had been warm and spring-like, suddenly changed, immense masses of black cloud formed in the north-west, dust clouds arose—in fact, a tornado came on. We made our way across the fields, disturbing wild ducks, pigeons, hares, and immense flocks of various birds, congregated in the sheltered spots, which, owing to the wind, did not hear our approach. A furious snowstorm followed.

N.—2. 8. 1878. Met about twenty members of the British Archaeological Society at Seven Wents, and accompanied them over the encampment.

N.—28. 10. 1878. Mr. Worthington Smith called with a friend and inspected the flints.

N.—3. 11. 1878. Reading Evans's *Ancient Stone Implements*.

This book was lent to Harrison by Worthington Smith. Harrison did not yet own a copy.

Early in 1879 Harrison made the acquaintance of James Buckingham Bevington, an elderly man who lived at Seven-oaks. Mr. Bevington was an enthusiastic student of nature, a lover of animals and of wild flowers, and a geologist. His tastes were, therefore, remarkably similar to Harrison's. Owing to his advanced years, he was able to do little field work. He described himself as an armchair geologist, unable to undertake active research, but keenly anxious to see all that he could, and to assist in any good work that was being done.

Harrison, when exploring any area, had made a practice of getting to know the field labourers. He taught them how to recognize implements if they found them, and he rewarded them for any finds as far as his purse would allow. Mr. Bevington urged him to continue and to extend this policy, and he expressed his intention of financing it by providing funds for paying the field workers on a liberal scale. His action undoubtedly had very useful results. Implements were brought to Harrison in increasing numbers, from old and new localities ; and although the greater number passed into Mr. Bevington's own collection, Harrison was able to sketch and to list them as they came in, and so to build up a record of finds and positions that would

have been far less complete had the labourers received smaller encouragement.

In the summer of 1879 Harrison made the personal acquaintance of Professor Prestwich. In order to appreciate the full significance to him of this event, it is necessary to understand his position at that date, as well as something of his mentality. He had done a great amount of field work, and had made many careful observations. He had collected a large number of flint implements in days when little attention had been given to the subject, and when comparatively little was known of the higher antiquity of man. He had finished his principal work in connection with neolithic remains around his home, and he was about to enter upon a systematic search for relics of palaeolithic man, a task that required some acquaintance with geological conditions. He had, indeed, acquired a good working knowledge of the geology of the district, although he had had no systematic training in the subject. He had read everything that he could lay hands on respecting prehistoric man, but he was little in touch with the proceedings of scientific societies, and he had few opportunities of obtaining an authoritative opinion upon any problem arising out of his researches. He thought, for example, that the white implements from the rock shelters of Oldbury were older than the neoliths found in the same neighbourhood, but he waited for several years for confirmation of his idea that they might be palaeoliths.

Living only eight miles away, at Shoreham, was one of the most eminent of British geologists, whose opinion on any geological question was authoritative, and who had taken a prominent part in the investigation of the discoveries of palaeolithic implements in the Somme valley by Boucher de Perthes. Here, indeed, was an adviser and a leader. But Harrison was of a diffident temperament, and although he had had a little correspondence with Prestwich, he for long hesitated to solicit an interview with so eminent a stranger.

One day, in 1879, he made an excursion to Well Hill with the Shoreham friend ¹ whom he had knocked up so unceremoniously

¹ See page 80.

at dawn two years before. When returning, the two passed by Prestwich's house, and Harrison exclaimed, 'I do wish I could meet Professor Prestwich'.

'That is easy', replied his friend, and, shortly afterwards, he told Prestwich of Harrison's desire.

'Bring him up. I shall be delighted to see him', said Prestwich.

'I took him the very next day', said his friend, in relating the incident, and so the introduction was made.

This meeting was not recorded in Harrison's notes, but seems to have taken place on 21 August, 1879. He asked Prestwich a number of questions, including one about the position of the high-level, implement-bearing gravels of the Somme. Using the valley of the Darent as an illustration, Prestwich pointed from his window to the little river, saying, 'If we take the Darent to be the Somme, the gravels would lie at about the level of the railway station'.

As this remark was made, it flashed through Harrison's mind that some of his own palaeoliths had been found in gravels that were higher, in relation to the level of the streams to which they belonged, than was the level of the railway station in respect to the Darent. Broadly speaking, greater relative height meant greater antiquity, and, consequently, amongst his finds were implements that might be older than those found by Boucher de Perthes in the Somme valley.

The realization of this fact and its implications was the foundation of his more important discoveries, and, metaphorically speaking, it was from Shoreham railway station that he climbed to higher levels and proved the occurrence of palaeolithic and colithic implements in the gravels of the high Chalk Plateau.

B. Harrison to E. Harrison.

31. 5. 1915

The years following 1875 were, so to speak, 'prentice years, when I was gradually mounting to higher levels. In 1879, when I first met Professor Prestwich, I went forward with a bound, for, on my asking him as to the lie of the implementiferous gravels of the Somme, compared with the Darent valley, he said, 'By the railway station'. This information was enough, and then began my close survey of the old Shode gravels.

Before the termination of Harrison's visit, Prestwich asked him to examine a railway section at Child's Bridge, and also the gravel at Goose Green, near Hadlow. He visited the first place almost immediately, and with the luck that seemed to attach itself to him so often when he was implement-hunting, he found *in situ* a palaeolithic flake. Within ten days he searched the Hadlow gravel, where he found a very rude palaeolithic implement. Prestwich, to whom these results were communicated, was delighted.

A note made by Harrison indicates that during this year he also found several eoliths—primitive implements belonging to the dawn of the Stone Age—on the Chalk Plateau, 'but', he wrote, 'these specimens, although sufficient to stimulate speculation, were not so convincing as later finds'.

An article in the *Cornhill Magazine* for December, 1879, entitled 'The History of Haconby', attracted Harrison's attention. The writer, 'G.A.', mentioned that he had explored caverns in which implements had been found, and Harrison thought that he might obtain some of these implements in order to compare them with the specimens that he had himself picked up near the rock shelters on Oldbury Hill. After reading 'The History of Haconby', 'twice before breakfast', he tells us, he wrote to 'G.A.', and soon afterwards received a reply.

Grant Allen, the owner of the initials, who was staying in the South of France, wrote that he had no cave implements in his own possession, but promised to try to obtain one or more specimens after his return to England. Harrison noted this letter as the beginning of a correspondence and a lasting friendship.

N.—7. 9. 1879. To Fairlawn. Inspected some very large boulders embedded in the park : not unlikely a stone circle. The earth-works on the slope below are said to be the site of the old Fairlawn House. I afterwards visited the drift-beds near Hamptons—no finds.

N.—19. 10. 1879. To the brick-yard, Platt. Inspected sections of sand rock and loam : found several curious ironstone balls.

N.—21. 10. 1879. To Ivy Hatch : obtained a Roman coin and a beautiful flint spearhead from Crosswell.

XI

1880-1—AGED 42-43

NOTWITHSTANDING that Harrison's eyes were open to the possibility of proving the antiquity of man to be much greater than had been generally supposed, he took a step in 1880 that, at first sight, seems surprising. In August of that year he presented the whole of his collection of flint implements, 184 in number, to the County Museum at Maidstone, retaining only a single specimen, which had a sentimental interest, owing to his having searched for and found it on 1 June, 1879, the day before he remarried.

He has stated that in giving his collection to the museum he was actuated not only by domestic considerations, but also by the hope that the public exhibition of the implements would educate his neighbours. 'I flatter myself', he wrote at a later date, 'that it was owing to the workmen at Aylesford examining the stones which I had deposited in the museum that they first recognized the palaeolithic treasures of that place [Aylesford]'.

How far Harrison resolved, even momentarily, to give up archaeological work is uncertain. His second wife, who possessed a fund of practical common sense, quickly perceived that his business flourished but little. She may have suggested that he would be wise to devote himself to more remunerative work than science, and, yielding to a sudden impulse, he may have resolved to part with his collection and to give up archaeology. If this is indeed what happened, he quickly yielded to new temptation. For on 11 September, 1880, a month after he had given away his flint implements, he made a momentous discovery.

He walked to examine a bed of gravel lying on High Field,

at the head of the gorge of the Shode. In this gravel, far above the present level of the stream, he found a palaeolithic implement. His thoughts, on making this discovery, must have been somewhat as follows. The gravel was a very ancient gravel, even in a geological sense, and in it was an implement that had been made by man and carried down afterwards by a stream running at a much higher level than the present stream, to the position in which it was found. So man was older than the very old gravel.

Harrison sent news of his find to Prestwich, who came at once to Ightham to see for himself the geological position in which the implement had been found.

N.—11. 9. 1880. Found a palaeolithic implement in High Field.

N.—22. 9. 1880. Professor Prestwich came over with Dr. Osmond Fisher.¹ We visited Isles and the bed of old river drift at High Field. This Prestwich pronounced to be a very old bed. He advised me to search it thoroughly, as well as similar beds at the same level. We went afterwards to the rock shelters at Oldbury, with which they were very pleased.

In view of the significance attaching to the find on High Field and the possibilities that it opened up, the soberness of the entries in his notebook is remarkable. But Harrison well knew that a theory could not be built upon the foundation of a single find, whatever its implications might be, and he searched eagerly for confirmatory evidence. The writer, who was a small boy in 1880, remembers being taken across High Field on many occasions with a promise of 'half a crown if you find a good one.' Alas, he never did !

The finding of the High Field implement excited the interest of several geologists. With one of these, F. C. J. Spurrell, Harrison became acquainted in November, 1880. Spurrell expressed his agreement with the view that the cave implements from the rock shelters were true palaeoliths. He considered that the cave implements followed closely on the river-drift implements in point of time, and that the neolithic culture

¹ Rev. O. Fisher, author of *Physics of the Earth's Crust*, etc.

succeeded the palaeolithic 'without that dead blank which many believe separated them'. He urged Harrison to continue his investigations, both of the gravels and of the settlement at Rose Wood, and he also suggested a search for implements on the dip slope running northward from the Greensand ridge, writing on one occasion, 'Could an implement be found at 500 feet, O.D., it would be of interest—not to speak of 600 feet'.

Harrison had already found a palaeolithic implement on the dip slope of the Greensand at 500 feet, O.D., namely, the Rose Wood implement of 1863, but he re-examined that area. He searched Shingle Hill and found weathered flint on the crest of the Ragstone escarpment at 680 feet, O.D. On Raspit Hill, at 650 feet, O.D., he found Tertiary flint pebbles and a portion of a palaeolith, whilst on Oldbury Hill, at 500 feet, O.D., he discovered a fine, pointed, orange-coloured palaeolith.

William Topley, the author of the memoir of the Geological Survey relating to the Weald, also heard of the High Field implement, probably from Prestwich. He wrote to Harrison on 13 December, 1880, asking for further information as to the gravel in which the find had been made. 'Is it,' he asked, 'the gravel on the south-east of Plaxtol? I do not remember gravel found north of this near Ightham. If you have palaeolithic implements in such a gravel, at a high level above the stream, it is a most interesting discovery'.

Harrison's answer to these enquiries was to the effect that the gravel *was* north of Plaxtol and near Ightham, that he *had* found the palaeolith in this gravel and that it *was* found at a high level above the stream.

The following are a few miscellaneous notes relating to the year 1880 :

N.—18. 1. 1880. To Hognore, and along the slopes, where I found some flint flakes. We were much amused by the rolling chalk loosened by the sun's rays forming little avalanches and appearing by their shadows to be gigantic insects flying sinuously down the hillside.

N.—25. 1. 1880. Found a hammer-stone near the Mote stream spring, and obtained a stone chisel from Ellsley.

Ellsley cultivated land near Rose Wood, from which district the chisel no doubt came.

N.—15. 2. 1880. To Patch Grove : found a number of palaeolithic cores and a palaeolithic implement.

N.—1. 8. 1880. To the drift bed at Aylesford.

The rapidity with which Harrison added to his collection of palaeoliths from Oldbury and the Shode gravels is amazing. In August, 1880, he had presented to the Maidstone Museum the whole of the implements collected by him, with one exception. On 26 January, 1881, F. C. J. Spurrell borrowed from him a series of palaeoliths, and delivered a lecture on them at Blackheath, whilst a week later he exhibited these implements at the Royal Archaeological Institute. The number of specimens is not stated, but it was evidently considerable.

The temporary absence of all the implements placed Harrison in a dilemma. No sooner had he sent his stones to Mr. Spurrell than his friend Mr. Bevington wrote expressing his intention of coming to Ightham to see them. Most people, in such circumstances, would have put off the visitor until a later date, when some palaeolithic fare would be available. Harrison did no such thing. The date fixed for the visit was a few days ahead, and he determined to go to the drifts and hunt for palaeoliths.

But the Fates seemed, for once, unpropitious. There came immediately what is still called in Kent the great blizzard of January, 1881. The countryside was covered with snow to a depth seldom equalled in the south of England. Harrison, however, remained unbeaten. On the day of the snowstorm a labourer brought him a good specimen of a drilled quartzite hammer, deep brown in colour and much abraded by use. Here, at any rate, was something to show his visitor, although a single stone would make a poor exhibit.

The ordinary hunting grounds were buried in snow drifts, but the railway line near Ightham was being converted from single to double track. The widening of the cuttings had exposed some sections of gravel, and Harrison hoped that these might be free from snow. He selected a section through the gravel of the

Shode at Fane Hill, and, after persistent search under very adverse conditions, he dug out from the drift with a hand trowel three fourths of a palaeolithic implement, which he described as 'of the older form and deep ochreous in colour'.

When his visitor called, a day or two later, he saw the Fane Hill implement, but, 'although', wrote Harrison, 'the evidence of man's handiwork was plain as a pikestaff to me, Mr. Bevington did not appreciate it at its true value, and looked upon it with sceptical eyes'. He was nevertheless interested, for a few weeks later he came again to Ightham in order to see the section on the railway from which the stone had come.

On the occasion of this later visit Mr. Bevington brought with him a copy of Professor James Geikie's *Prehistoric Europe*, a work that had only recently been published. Harrison dipped eagerly into the book, and asked to be allowed to retain it for three or four weeks, his time, except on Sundays, being fully occupied. 'Keep it', said his kindly friend. 'I present it to you. It may prove useful'; and he quickly followed up his gift with Topley's *Geology of the Weald*, a work which Harrison called his 'bible and encyclopaedia in one'.

Harrison now set himself to search the high-level gravels of the Shode persistently and continuously. High Field had yielded a palaeolith: it soon yielded others. There were extensive spreads of gravel at Fane Hill and Ives, and—on the other side of the stream—at Coney Field. These deposits quickly gave up 'many fine specimens of the older form' to the searcher. The drift at Dunks Green, with which he had become familiar while still a schoolboy, but which at that time had yielded no implements, was now examined again. The conditions were favourable, for extensive works were in progress at the very spot where the gravel lay, and an acquaintance of Harrison's was in charge of the operations. Harrison explained to him that palaeolithic implements were in all probability buried in the deposit, and specimens were quickly found, both in the gravel, *in situ*, and on the surface.

The flanks of the Basted valley—which, like Dunks Green and Fane Hill, was a part of the Shode system—next received

attention. There the gravel was white in colour, mostly angular or sub-angular ; and it was to be found in a number of separate patches, more than 200 feet above the present level of the stream at about 400 feet, O.D. Harrison found patches of the gravel at Ightham Warren, Vyse's Field, East of Buley, Crouch, Old Soar, Cop Hall, Tebbs Farm, and elsewhere along the terraces of the valley. The Cop Hall patch was the first to produce a palaeolith, and from the other localities implements or flakes were forthcoming soon afterwards.

These developments were reported to Prestwich, to whom Harrison sent particulars of all important finds, and who from time to time made suggestions as to spots which it might be worth while to search for implements.

J. Prestwich to B. Harrison.

9. 2. 1881

I am glad to hear of your further finds, and to learn that you have been more successful than I was two or three years ago in finding flint implements in the high-level gravel.

The cutting we examined was the one at the station.¹ We had not, however, much time to give to the search.

The position is very analogous to the flint-bearing high-level gravel at Salisbury, and bears some analogy to the Reculver gravels. In neither of these places have bones been found. You will of course, however, look out for them, as well as for implements, when the new cuttings are made.

Another worker amongst the high-level gravels was Worthington Smith, whose explorations were directed to the deposits of the river Lea. Writing to him on 2 May, 1881, with reference to the finding of implements in these gravels, Professor James Geikie, with prophetic instinct, stated, 'They will yet be found in such deposits and at such elevations as will cause the hairs of cautious archaeologists to rise on end. I hope other observers will take a hint from you and search for palaeolithic implements in places which have hitherto been looked upon as barren of such relics'.

Worthington Smith sent this letter to Harrison in order that he might read it. Harrison's comment, written at a later date,

¹ i.e. the railway station at Borough Green.

was, 'If he [Geikie] with his wide experience was ready to cry "excelsior", I was prepared to follow. But Worthington Smith was staggered. He then lived in North London, but on his removing to his native place, Dunstable, he made a vigorous search of the high-level gravels, although he still stuck to man being post-glacial'.

The above passage indicates that Harrison's own views of the antiquity of man were expanding, and that he no longer regarded man as existing only after the glacial period. It will be necessary to return to this subject later.

A geologist with whom Harrison had corresponded for several years was H. B. Mackeson, of Hythe. Harrison called on him in 1881, and a lengthy conversation on sub-aerial denudation took place. Harrison spoke of his own ideas with reference to the denudation of the Wealden area, and mentioned that he had found water-worn palaeolithic implements at Buley, a fact that pointed to the former existence of a river flowing northward from the direction of the Weald down the dip slope of the Lower Greensand beds. Some time afterwards Mackeson wrote that he had had some discussion with Prestwich at the meeting of the British Association, which was held in 1881 at York.

'I fancy', stated Harrison in a note, 'that he must have referred to my speculations, for Prestwich wrote to me shortly afterwards advising me to collect all the facts I could, but not to theorize. I followed his advice and am not without hope that my geological reputation has gained thereby'.

Prestwich had probably realized by this date that Harrison's finds were likely to be of scientific importance, and was anxious that his co-worker and pupil should not diminish the value of his discoveries by ill-informed or premature speculations respecting their geological history.

Harrison had corresponded for several years with Dr. John Evans, the author of the standard work on stone implements,¹ and had kept him apprised periodically of the progress of his

¹ *The Ancient Stone Implements, Weapons and Ornaments of Great Britain*, by John Evans, D.C.L., F.R.S., etc.

own work. The following letter indicates that in 1881 he had already begun to search for implements in the drifts of the high Chalk Plateau.

B. Harrison to J. Evans.

Early in 1881

I am now working at a bed of ochreous, much-abraded flint, lying in a depression on a ridge between two big chalk valleys at an elevation of 520 feet O.D. It is interesting, and seems to me to be the first home of much of the ochreous flint. It is on the water-parting of the Darent and Medway, on the Chalk due north of Ightham.

Dr. Evans followed Harrison's palaeolithic discoveries with great interest, and in the autumn of 1881 he visited Ightham in the company of Prestwich.

J. Prestwich to B. Harrison.

17. 9. 1881

Dr. John Evans is coming to visit me next week, and we purpose then to run over to Wrotham and Ightham, but we cannot do that on any other day than Saturday, the 24th. I fear this will not suit you very well ; still, if you could spare us time to show us your specimens and accompany us to the railway section, or meet us there, we should be glad. . . .

Harrison met his visitors at the railway station, and led them across the fields to several of the more interesting gravel beds in which he had found palaeoliths. Amongst others the section of gravel exposed in the railway cutting at Fane Hill was included. On reaching this section Harrison, who it will be remembered suffered from deafness, observed, 'This is where I find the implements'.

Prestwich's reply astonished him, 'A most unlikely spot', and for many years he puzzled over the answer, which was precisely opposite to that which he expected to receive. However, on the incident being recalled long afterwards Prestwich, although not remembering the conversation, was confident that he had not been heard aright, and that his remark must have been, 'A most likely spot'.

Harrison was unable to spare from his business the whole

of the day, and, after accompanying Prestwich and Evans to Oldbury Hill, he left them to drive to the gravels at Buley and Basted. The driver, however, missed the way and took them by a long and hilly route through Crouch to their destination.

No doubt Prestwich's keen eye noted the gravel at Crouch, and he asked Harrison to examine it, for the latter stated that the error of the driver of the carriage 'was productive of good, for it was the indirect cause of my extending my search for implements to Crouch, where I met with success'.

Harrison has left a note of events that followed on the visit of Prestwich and Evans.

N.—After his visit Dr. Evans kindly presented me with his book on *Ancient Stone Implements*. This book proved of great use to me. It arrived on a Saturday, and next day I took an early morning dip into its pages, followed by another after breakfast. I continued reading until my wife summoned me to church.

It happened that the Rector had recently introduced into the pulpit a rest for a book or sermon which could be raised or lowered like a music stool. He was near sighted, and on this occasion he raised the rest so high that his lips were hidden from view, and my deafness prevented me from catching a word of the sermon.

My thoughts wandered, and I was thinking of the Salisbury country which seemed to me to be geologically similar to my own. I resolved to go in the afternoon to search all up the Buley valley—particularly about the 400 foot level. This resolution was carried out, and in Gate Field I lighted on a patch of stained and weathered chert gravel. After close search I secured one perfect, deep yellow, palaeolithic implement and several fragments.

Calling on one of my scouts¹ who worked on the land at Buley, I showed him my find, and urged him to keep an eye for any relics. He replied, 'I have often wondered why so many beach pebbles should be in that field'.

A few days later a large gang of workmen were employed in Gate Field to grub the hops with which it had been previously planted. My scout explained to them what might be found there, and ere long, one of them came down with several fine palaeoliths. I rewarded him, with the result that a second batch was brought in before the day was out. For several weeks a close search was made

¹ A term applied by Harrison to the field workers whom he had trained to find flint implements.

and some beautiful specimens were secured. By following up the valley, others were found near the Greensand escarpment, and a flood of light was thus thrown on the fine implement which I had found in 1863 on a heap of stones which had been picked off.

Prestwich appears to have come again to Ightham, this time with Dr. Osmond Fisher, either shortly after his excursion with Evans, or possibly a year later in the autumn of 1882. On the occasion of this visit a journey was taken to Goose Green, Hadlow, where a deep brown, much rolled palaeolith was found. This implement was taken from the drift in which it lay, in the presence of Prestwich, but it is not clear whether it was found by Harrison or by a workman. Harrison wrote to Prestwich, a few days after the visit to Hadlow, offering to give him the implement.

J. Prestwich to B. Harrison.

6. 10. 1881 [or 1882]

I am much obliged to you for the offer of the flint implement from [Goose Green], Hadlow, which I should value as having foreseen the probability of the discovery. Should you go there again and obtain permission to dig the gravel, you will be most likely to find both flint implements and mammalian remains at or near the base of the gravel.

XII

1882—AGED 44

THE knowledge gained by Harrison in the course of investigating the Shode gravels led him to wish to supplement his observations by examining the drifts of another stream, and selecting the upper Darent for his purpose, he made excursions to Limpsfield, Brasted, and Sundridge.

On 18 December, 1882, when returning from one such excursion, he called on his friend J. B. Bevington at Sevenoaks, but found him unwell and in low spirits. After a chat, Harrison started to walk home, but turned aside at the old gate-house west of Seal village to examine an outlier of drift lying a little to the north of the road. With the almost uncanny instinct that seemed to guide him when searching for implements, he quickly found a pointed palaeolith. Here was a tonic for an invalid of antiquarian tastes ! Returning with speed to Sevenoaks he presented his friend with what he called 'a fish from his own pond'. The effect on the recipient's spirits was magical, and when Harrison started for home a second time he left behind him 'a rejuvenated man, without a trace of his former depression'.

Reference has already been made to a letter in which Professor James Geikie foretold the finding of palaeoliths in positions that 'would cause the hairs of cautious archaeologists to rise on end'. Harrison had not forgotten this prediction ; he was, indeed, himself on the road to its fulfilment. His observations of the river drifts at various levels above the stream-beds could not but give rise to speculations respecting their ages. He read Geikie's *Prehistoric Europe*, as well as a lecture by the same author on *Nature's Rubbish Heaps*. The lecture seemed to throw

a light on certain obscurities that had arisen in the course of his own observations, and he wrote to Geikie on the subject. The latter responded in the most generous spirit with a series of illuminating letters respecting the gravels and their probable relation to the ice age.

Geikie's letters not only contributed to the moulding of Harrison's views, they turned his thoughts towards glacial geology, and opened his eyes to the possibility that some of the older palaeoliths were made before the glaciers retreated finally from this country. Henceforward he became keenly eager to collect any evidence respecting ice-action south of the Thames.

The following letter appears to have been written early in 1882, and refers to researches in a 'high level spread' of drift at Buley, and to the 'outlier of old gravel' at High Field. In it is a reference to the first excavation made by Harrison in order to find implements *in situ* in the gravel, and not merely on the surface.

B. Harrison to J. Evans.

1882 ?

My high-level spread is proving very productive. Six implements last week—three to-day : all of the oldest form, most of them from 15 feet, O.D.

I have had a pit eight feet deep dug in the outlier of old gravel that I took you to, above the ravine. So far it shows some six to seven feet of trailed stuff : old chert, flint, Oldbury green and white sandstone—proving to me that it must have sloped down from the west. It is very interesting and Ightham will yet be a peg for geological theories to be hung on.

Having found so many implements, it was hinted to me that the genuineness of some of the finds in my locality might be doubted, so now I catalogue, number and sketch all implements found.

This letter was followed by other correspondence with Evans, and in a letter of May, 1882, Harrison referred to the possibility of 'a remote glaciation' in his area.

B. Harrison to J. Evans.

1. 5. 1882

I thought to lay aside my archaeological harness and don the botanical, but two finds of a very interesting character make me resolve to drive two in hand.

I was at Mr. Darwin's funeral last week, and I afterwards visited the Jermyn Street museum for the purpose of examining Mr. Skertchly's¹ implements. I came away convinced that, if one may judge from appearance and type, my implement of which I sent you a sketch is equally ancient, whilst the two patriarchs of my collection are, I consider, more antique still.

During the past week I secured two specimens from the ridge of the water-parting of the Darent and Medway basins—such an interesting spot.²

Yesterday I examined the gravel along the railway line and found Gault fossils in it. This seems a point, as the configuration of the land seems to me to prove that when the ammonites were deposited in the brick-earth, the Gault [i.e. Holmesdale] valley had not been channelled out, and points to a remote glaciation.

The 'patriarchs' probably came from the drift at Fane Hill, which produced a large number of rude palaeoliths that Harrison often referred to as the 'Fane Hill patriarchs'.

Evans, who was consistently cautious with respect to the question of the greater antiquity of man, hastened to dissociate himself from the views advanced by S. B. J. Skertchly, that the earlier palaeoliths were 'older than the Chalky Boulder Clay' and, therefore, inter-glacial or pre-glacial.

J. Evans to B. Harrison.

7. 5. 1882

I am glad that you were able to attend Mr. Darwin's funeral, which was so impressive a ceremony.

As to the implements found by Mr. Skertchly, I for one see no reason for attributing to them any pre-glacial antiquity. I believe them to belong to the same geological period as the others found in their immediate neighbourhood, and should give the Ightham specimens the same antiquity.

I shall be very glad if in the course of this summer or autumn I can manage another visit to your localities. One can never take in the whole features of a complicated case at a single visit.

J. Evans to B. Harrison.

About 1882

You are making out a most interesting case, and the discovery of so many implements at such high levels, and so far from any

¹ S. B. J. Skertchly, F.G.S., of the Geological Survey.

² Near St. Clere : not on the Chalk Plateau.

important stream opens up a wide field for speculation. When the days get longer I should very much like to run down to Ightham again and look afresh at the configuration of the country.

It was in 1882 that Prestwich seems to have first thought that Harrison's discoveries merited notice in scientific circles, and he wrote offering to bring them before the British Association for the Advancement of Science :

J. Prestwich to B. Harrison.

12. 7. 1882

If you have no objection, I would give some notice of your discoveries of palaeolithic implements to the British Association at their next meeting at Southampton on 23 August. I would, however, only do so with your sanction and approval.

Harrison's answer is not on record, but it is likely that he pleaded for time to collect more evidence before any public announcement of his discoveries was made. It is certain that he himself felt that he had much work to do before basing any conclusions on the result of his researches ; it is equally certain that he would have felt honoured to have his discoveries interpreted by Prestwich—as, indeed, they were a few years later. As the records of the meeting of the British Association at Southampton in 1882 contain no reference to a communication from Prestwich on the subject of the Ightham implements, there is every reason to suppose that his reply to Prestwich's proposal took the form suggested.

XIII

1883—AGED 45

THE search for wild flowers was yet not entirely abandoned in favour of archaeology. The latter subject attracted Harrison ever more strongly, but he was induced from time to time to join in a quest for orchids on the Chalk hills.

C. J. Knight to B. Harrison.

22. 1. 1883

I am really . . . pleased to think there is a . . . probability of our having one more good search for the lizard [orchis]. That the plant is extinct is to my mind extremely doubtful, when we remember what tricks some of our common orchids play—such, for instance, as the bee : one year abundant in one place, then almost if not quite disappearing, and blooming in some fresh locality. You once said you believed that the bee does not bloom each year, and this, I suspect, is the case with many of the orchis family. And we know, too, how strong *fusca* need be before producing a flower spike. . . .

The river drift at Aylesford, on the Medway, has produced great numbers of deeply stained and rolled palaeolithic implements. Harrison had known of the deposit since his schooldays,¹ but it was not until thirty years afterwards that the first recorded palaeolithic implement was found there.

On 28 May, 1881, William Topley, the geologist, led to Aylesford the members of the Maidstone Scientific and Natural History Society. Amongst the party was Mr. Arthur Hickmott, a young scientific pupil of Harrison's. Topley halted at the Aylesford Pottery, and from an elevation above a Gault clay pit he gave a short lecture on the formation of the valley of the Medway. The Gault is there capped by a small outlier consisting

¹ See page 34.

of several feet of river drift, and whilst the lecturer proceeded with his discourse, Mr. Hickmott was both listening, and examining the exposed face of the gravel. In so doing he saw a brown palaeolith, *in situ* in the drift, disinterred it, and displayed it to his companions. The finding of the implement seems to have brought the lecture to an abrupt termination. The lecturer straightway gave a brief explanation of the significance of the discovery, and his audience fell to searching the gravel for more implements, although without any further success.

Two years later a workman who had been shown a palaeolith by Mr. Hickmott and taught to recognize an implement if one were found, discovered a fine specimen in Mr. Silas Wagon's pit, in the drift or lake beds, near Aylesford church, which had previously yielded many prehistoric mammalian remains. This implement passed into Harrison's possession.

The Aylesford finds were important as establishing the contemporaneity of man and the mammoth in the Medway valley. Harrison took part in the continued search which now began, and he lent the workmen employed in the pit implements to educate their eyes. Further finds were quickly made, and the gravel pit at Aylesford became known as one of the most productive of implement-bearing sites.

J. Evans to B. Harrison.

23. 8. 1883

I am much pleased at . . . learning that so fine an implement has been found in the . . . Aylesford gravels. I searched in the pit there, I cannot say how many years ago, but something like twenty, and from time to time have incited [two residents of Aylesford] to institute search there for implements. I am therefore as much gratified as you can be, and now that the discovery has once been made I make little doubt that many more implements will be found. . . .

I am glad to hear that your local discoveries have multiplied to such an extent, and hope that some day shortly you will send me a line to say that you are coming to see my collection.

Harrison quickly responded to this invitation, for a week later he journeyed to Hemel Hempstead to see the archaeological treasures included in Dr. Evans's magnificent collection of

antiquities. He spent what he called a red-letter day, and he left a lengthy note of his visit. Like most of his days spent away from home, the day was a full one, for in addition to over one hundred miles of railway travelling and the time spent at Hemel Hempstead, he managed to include visits to a friend living near Regent's Park, to the British Museum, and to the Moore and Burgess minstrel entertainment at St. James's Hall.

His policy of interesting the field workers in stone implements was productive in results.

B. Harrison to J. Evans.

13. 10. 1883 ?

Having found a pointed implement on Sunday, I visited two cottages near the spot in order to have a quiet chat with the men occupying them, and thoroughly to interest them in the search—with a promise of reward in case of finds. It was a treat to witness the interest they took in the matter and how readily they grasped the subject, much more readily than people above them who have not used their eyes and brains so much as the field labourers, with their dash of common sense sharpened by observation.

To-day, from the field in question and the slope on which I wished them to search, I have obtained no less than five capital palaeolithic implements as well as a fragment of another.

This letter also indicates how productive were the gravels around Ightham in the days when no searcher other than Harrison had appeared on the scene.

XIV

1884—AGED 46

THE period devoted by Harrison to the examination of the gravels of the Shode basin extended roughly from 1879 till 1885. During the last-mentioned year, however, he was turning more in the direction of the Plateau, and it is with 1884 that his greatest activities below the Chalk escarpment may be said to have closed. Patch Grove, Fane Hill, Bay Shaw, High Field, Buley, and other localities where lay the high level drifts of the Shode or of an earlier stream, were frequently visited, and usually with successful results. Some of these hunting grounds were near at hand and could be searched in the early morning before business hours, or for an hour before twilight on a summer evening.

The greater age of the higher gravels in relation to existing streams led him always up the slopes when seeking new hunting grounds, but the greatest fascination of all lay in the water-sheds and unwasted ridges, where the oldest relics of all were to be looked for.

The successive steps in the unfolding of the story of the palaeolithic gravels were reported to Prestwich and to Evans as new facts were discovered. Both of them were keenly alive to the significance of this work, but Prestwich, in addition to the work entailed by his professorial duties at Oxford, was busily occupied in the preparation of his large text-book of *Geology*, the first volume of which was published in 1886, and was not yet ready to turn his attention principally to the discoveries in the Ightham district. Harrison, however, called on him regularly when he was in residence at Shoreham, and

took with him specimens of his latest finds. Prestwich also took advantage of the comparative leisure afforded by the long vacation to visit some of the more important gravels in which implements had been found.

B. Harrison to J. Evans.

Early in 1884?

I have been working hard of late on the unwasted ridges at the base of our Chalk escarpment, at the 400 foot level. The place abounds with old white flakes, cores, and rude hammers, and to-day I found an implement very like the Currie Wood specimen, and also some quartzite pebbles.

I have long had my eye on these beds and their numerous flakes and worked flints, but until to-day nothing decidedly palaeolithic had been found, though the rude white flakes and the red stained one seemed to point to a considerable antiquity, particularly as scrapers of a later age, quite unchanged, were also found.

After my last visit to Aylesford, when I noted that all the implements were found at the base of the gravel, I lay in bed thinking it over, and measuring some of my gravel beds by the Aylesford yard. Thus, I thought, a certain bed has not yielded implements, but it ought to do so. I will search at a point where a small tributary valley has been cut through to the base.

I arose at six, was on the bed at 6.15, and in less than three minutes I had secured two beauties.

To-morrow I join Professor Prestwich in a visit to the eastern side of our basin, near Snodland, viewing on our way the stone circles at Coldrum and Addington. I have never known the luxury of long holidays, but I can well appreciate short full ones. Of such a character to-morrow's excursion, I doubt not, will be.

On 9 February, 1884, Harrison was visited by Henry Walker, the geologist. He was about to lecture at Maidstone on the antiquity of man, and he applied to Worthington Smith for palaeoliths with which to illustrate his lecture. Worthington Smith advised him to obtain local specimens from Harrison, 'who', he said, 'is doing for the Medway what I am doing for the Lea'.

Harrison not only expressed his willingness to lend his visitor specimens, he also took him to the gravel beds and to the rock shelters at Oldbury, and supplied him with information for the purposes of his lecture.

The palaeolithic acquisitions of a single week are recorded in a letter written to Dr. Evans.

B. Harrison to J. Evans.

27. 3. 1884

A brief summary of last week's work may suffice to show what a prolific and interesting palaeolithic paradise I live in.

Mr. Worthington Smith wrote that he was about to send some of his implements to the British Museum, and as Mr. Franks wished for some from Kent, he asked whether I would like to send a couple or so. Certainly I should, but I felt desirous to send some recent find, and did not wish to break into my catalogued specimens. I therefore whipped up my men, offered an extra bonus for all implements brought in during a week, and put on the harness myself.

I send the result for your inspection.

No. 167 is from the spread of gravel which caps the ridge at the railway cutting.

No. 166 is from Oldbury slopes, and what I call, provisionally, a cave implement.

No. 165 is the fourth 'ogee-curve' implement from Buley.

No. 164 is perhaps the most important implement I have yet secured. On the eastern side of Oldbury Hill, on an outlier, stands Oldbury Place. When the house was rebuilt, five years since, an interesting section was disclosed. In my efforts to picture the past, and to trace the glacial spread in this district, this particular spot seemed to me to fit, and I thought, 'Can I but find here, my case will be proved'.

Two years ago I obtained an implement from the slopes, but as it was found at a lower level it did not satisfy me. No. 164 comes from the capping of gravel, and is to me of great importance. The reason I hope to make clear to you some day, by aid of the configuration of the land, and the gravel spread in relation to others.

By the by, the finding of No. 164 has led to the history of the find of two years ago being disclosed, and it seems that both implements belong to the same period.

A and B were working in the plantation which contains the gravel. A found an implement, but after examination threw it away—down the hill. On another day he again picked it up, and gave it a second cast—downwards. B afterwards found it and remarked, 'I shall take this to Mr. Harrison'.

A replied, 'It is of no use; why, I have already found it twice'.

I had at first given the level of this find as 375 feet, O.D., but I now look upon it as having come from the 400 foot level.

The significance of No. 164 and its thrice-found fellow lay in the fact that it was found in a deposit which Harrison regarded as a 'glacial spread'. The inference he drew was that the implement was at least as old as the gravel, and therefore of glacial or inter-glacial age.

Worthington Smith, whose researches north of the Thames paralleled those of Harrison in Kent, urged the latter to describe his own work.

Worthington G. Smith to B. Harrison.

30. 3. 1884

Pray write out a paper in sections dealing with the spreads, levels, bones, stones, etc., in your district. It is a duty that certainly devolves on you.

But Harrison felt that he had not yet completely elucidated the story told by the gravels and their contents. He copied this letter into one of his note-books, and underneath the copy he wrote, 'Better be safe than sorry'.

Geological excursions to Well Hill, Barming Heath, Seal, Limpsfield, and Old Soar took place in the summer and autumn of 1884. Of these only the excursion to Well Hill was unconnected with the working out of the Shode gravels. A visit to Dunton Green in the Darent valley was also recorded.

On 23 July, 1884, J. B. Bevington wrote to Harrison stating, 'If I live next year I shall be a prowler, for I have resolved to relinquish business in November next. My stick and my stone implements will be my companions'.

This announcement opened up to Harrison the prospect of geological excursions with an agreeable companion to places of common interest. His friend was an octogenarian, but this fact, whilst limiting the length of walks, actually extended the range of places visited, for with the aid of a carriage more ground could be covered than on foot. Moreover, Mr. Bevington was quite content to leave to his friend the choice of both destination and route, and delighted when Harrison selected a gravel which he wished to visit for his own purposes.

November came, and with it a request to Harrison to name the first place to be visited. He suggested Limpsfield gravel bed,

and Bevington agreed, writing, 'Suppose we start soon after ten o'clock : it will give us a long day and we may visit many fields. I will take provender and we can dine on our way. That we may do some ground with speed I shall order two horses'.

On the appointed day, which, in keeping with an excursion of so pleasant a character, was 'delightfully fine, the autumn tints on the elms at their very best', the enthusiasts set forth behind their two horses.

N.—12. 11. 1884. . . . Arrived at Chipstead [Kent], examined a deep section in a bed of chert gravel near Dry Hill. We drove up the slope south of Sundridge, but found no clear section of the high-level gravel. At Moor House, Westerham, we again turned south and examined the ridge of common land : here we lighted on Tertiary pebbles and old flint. We had a good search on the slope of a field to the left of the road, on the summit of the spread, finding several quartzite pebbles and a palaeolithic flake. We called on Mr. Bell¹ at Limpsfield, inspected his collection of implements, including his recent acquisitions, one an 'ogee-curve' implement found on the old spread of drift that we had visited. On returning we found, at the hollies, many more quartzite pebbles and one implement.

The day above described was one of many outings taken with the same companion. In addition to the Shode gravels and a number of short excursions, Halstead, Polhill, Knockholt, and Shoreham were visited—each of them possessing some feature of interest to a geologist.

Two letters written by Harrison to Professor T. Rupert Jones belong to the period under review.

B. Harrison to T. Rupert Jones. 1884

Book safely to hand, please accept thanks, will copy all I need and return on Monday next. My conscience pricks me for having caused you so much trouble in writing at such length.

As you seem interested, I may mention that recently I found one flint implement in the bed of gravel on East Malling Heath referred to by Foster and Topley,² where also I lighted on a palaeolithic flake and an implement close by on the brick-earth.³

¹ A. M. Bell, F.G.S.

² *The Geology of the Weald*, 1875.

³ This drift lies over 300 feet above the present level of the river [Medway].

On hearing of this, Professor Prestwich elected to go to the bed, and we had a long turn in the interesting district. On my mentioning to the Professor the existence of a spread of worn stained gravel on the dip slope of the Chalk hills, at 530 feet, O.D., he visited the spot and found a quartzite. Since then I have found two more from the same bed.

From Limpsfield, some ten or twelve [quartzites] exactly on the water-parting of the Medway and Darent, and from the various unwasted positions on the water-partings of the Medway and Darent at Ightham, some eight or ten pebbles. I have observed them in our district for a long time past, now I mean to note all.

When I tell you that I have secured 250 implements from this district, it will be seen what an interesting chunk of an old world I am fortunate enough to live near.

Again thanking you . . .

B. Harrison to T. Rupert Jones.

23. 11. 1884

Herewith I return the book you so kindly lent me. It has been of great assistance to me, and I have copied a good part.

I happen to live in a district which, viewed in its relationship to the past, seems to be especially interesting, particularly so as regards the antiquity of man.

I possess close on 300 implements, all palaeolithic. Some were found in drift beds, but the majority are from old unwasted surfaces on the dip slope of the Wealden-Folkestone beds.

Since possessing your book I have again visited the Limpsfield gravel spread. There I found in a very short time some eight or nine quartzite pebbles, and a friend, a resident, has secured about twenty, as well as some eight or nine implements.

In similar beds in my own parish which I look upon as of the same age, I find quartzite pebbles and implements.

I have noted your address, and presently will send on some implements in return for your so kindly and readily helping me.

The above letters to Professor Rupert Jones contain several significant passages. The presence of the quartzite pebbles suggested glacial action in Surrey and Kent. The rapidity of the growth of Harrison's collection of palaeoliths, 300 in four years, is noteworthy.

In the first letter Harrison stated that he mentioned to the Professor [Prestwich] the existence of a spread of worn stained

gravel on the dip slope of the Chalk hills at 530 feet O.D.¹ The gravel in question was situate at Parsonage Farm, near South Ash, and in it Harrison found coliths, the most primitive of the stone tools used by man. The introduction of this ochreous gravel to the notice of Prestwich merits the fuller account to be found in a note of later date.

N.—I had for many years been greatly interested in the much-worn deeply stained gravel lying at summit level on Parsonage Farm, Ash. I lighted on other patches, and one day I drew Professor Prestwich's attention to it, taking him samples, as well as similar pieces from Barming high-level bed and also from Aylesford gravel pit. He asked to have the position of the gravel marked on the map.

On my next visit to him, I found that he had been to Parsonage Farm with a friend. I should not have grasped his interest in the position but for the fact that the map was needed for reference, and the sheet could not be found. His friend suggested that it might have been left in the carriage, and the coachman on being appealed to, sent in the missing sheet.

Prestwich asked many questions : as to the limits of the gravel and whether found nearer to South Ash ; and I told him that immense quantities of the flint had been removed and used on the roads in years gone by.

Prestwich said, 'When we were there we found a large quartzite pebble, which we broke—go and see whether you can find it'.

I did so a few days afterwards, and found many worked stones.

The worked stones were coliths, but Harrison in 1884 was not sufficiently confident that they were the work of man to make the suggestion to Prestwich. He adds, however, that he 'continued to search', and his search for implements on the Plateau became thenceforward his principal archaeological work.

¹ He more usually gave the height of this gravel as 520 feet O.D., but as the ground slopes a little, the upper part of the drift no doubt lies at the higher level.

XV

1885-6—AGED 47-48

THE year 1885 stands out as the year in which Harrison first found a palaeolithic implement on the Chalk Plateau—at Ash—and so inaugurated the discoveries that—independently of his work in connection with the eoliths—pushed back the antiquity of man, as disclosed by the palaeolithic tools, to an extent that forty years ago was considered revolutionary. His discoveries of eolithic implements, and the issues that such discoveries raised, have tended to obscure the significance of his work in finding the old Plateau palaeoliths of the Ash group, which were found in such numbers and in such positions in relation to the configuration of the country and to its geological history, as to necessitate an immense antiquity being assigned to the people who made them.

Harrison found the first Plateau palaeolith on 19 November, 1885, in the course of a walk that he undertook in pursuit of a scientific 'wild goose'. In order not to break the narrative of this incident, which extended over a period of about ten months, the quest will be followed to its conclusion before other events are dealt with. The quarry was a mysterious rock called Swanscombe stone, and the hunters were Prestwich and himself. He wrote from his original notes a connected account of the tracking down of the stone, and this account (with some additions taken from the original notes and from letters) is here reproduced.

N.—In the summer of 1885 my son, a boy of thirteen years of age, was staying with an aunt, Miss Rebecca Rogers, at Green Street Green, near Dartford. On his return, he brought me tidings of an

extraordinary find. A gunpowder factory was being established in the locality, and a well having been sunk to a depth of 300 feet, the material excavated was lying close by. A few yards distant from this material was a heap of hard rock, said to have been pierced in sinking the well. My son brought me specimens of this stone, which at once attracted my attention, as it contained a vast number of small fossils, and was in itself different from anything I had ever seen. On my taking it to Professor Prestwich he eagerly inquired whence it had come. I replied that it was found beside a deep well sunk in the Tertiaries near Darenth Wood, not far from Swanscombe. He examined the stone with a lens and identified the fossils as *limnaea* and *chara* (showing the stone to belong to a fresh-water deposit). He begged me to 'pay an early visit to the place and *get more, even if it be a barrow load*'.

J. Prestwich to B. Harrison.

Shoreham, 5. 8. 1885

I have recently discovered two new terraces of river drift at 250 and 350 feet in this valley. They may be worth a search on your part. Both are close to Eynsford. I could show you the exact spot on a map.

Have you been again to Green Street Green, or have you got some of the curious siliceous rock of which you left me a specimen? I must go there some day. Please give me the exact name of house or farm where the well is.

Harrison's account continues :

I set out to investigate the matter, the Professor and Mrs. Prestwich meeting me at Green Street Green on 13 August. My diary records the day as follows :

N.—13. 8. 1885. Walked from Farningham Road Station by way of Sutton and Darenth to the lower part of Green Street Green, across the road, and up the hill to the capping at 300 feet, O.D. On this cap of London Clay I found chert in abundance, fragments of Oldbury stone and ragstone. I continued along through Bean farm yard, noting the elaborate well there, 160 feet deep, and thence to the powder factory near Swanscombe.

The manager of the factory could not help me and referred me, for information, to Messrs. Isler & Co., of Blackfriars Road. I chatted with the gravel diggers; could hear nothing of any discoveries of mammalian remains. Called on a man eighty years of age, an old well digger, a perfect mine of memories, whose experiences in well sinking were all as fresh in his mind as if they had just occurred.

Caught up Professor and Mrs. Prestwich at the fossil bed beyond

the Ship inn [Green Street Green] : this, the Professor remarked, was the junction between the Woolwich and Reading beds and the Thanet Sand. Found a vast quantity of the peculiar stone about which we had come to Swanscombe, lying by the roadside, and secured some large blocks, for which the carriage was sent.

Started for home at six ; noted the similarity of the valley and its drift to that at Green Street Green near Farnborough, in which remains of the musk ox have been found. Found drift with chert on the crest at St. Margaret's, also chert and ragstone in the river drift east of the mill at Eynsford, at the 200 foot level.

As we passed by Shoreham heights, near Dunstall, I questioned the Professor about the ironstone fragments found on the plain in such abundance, and again near Colegates. He assigned them to the Lenham beds.

Dr. Prestwich three times referred to the day as having been very enjoyable. He was full of reminiscences as we passed through country he had traversed fifty years before. Pointing to a small inn on Green Street Green, he said that half a century ago he had walked over from Croydon. He had arrived at eleven o'clock at night, and had taken lodgings there after being refused accommodation at the hotel at Farningham, owing no doubt to the dirty clothes he and his friend had on. They were working the district geologically, and had spent the greater part of the day in the examination of neighbouring sections. . . .

One of my trained implement hunters having found a stone apparently worked, at Stonepits, about three miles west of Ightham, brought it to me. I saw at once that it bore a remarkable resemblance to the Swanscombe rock. I sent it to the Professor, who wrote :

J. Prestwich to B. Harrison.

19. 9. 1885

There is no doubt of the specimen from Stonepits being made of the Swanscombe stone, and it is a *very curious and interesting fact*. Being so hard and indestructible it must, like the flints of the Chalk, have resisted denudation, and I should not be surprised to find a good deal of the debris scattered over the immediately surrounding district, but not beyond the Chalk hills. Therefore, the specimen at Stonepits was, no doubt, brought there. It looks like an implement.

J. Prestwich to B. Harrison.

6. 10. 1885

Are you quite sure that you can rely on the man who brought you the specimen of the rude travertin implement from Stone [pits] ?

I return to Oxford on Wednesday, next week. If you are passing near here before then I should be glad to see you.

On 7 October, 1885, I went over to Shoreham and found Professors Judd and Wiltshire with Professor Prestwich. After lunch Professor Prestwich explained the constitution of the Swanscombe stone, pointing out the seeds of *chara*, a fresh-water plant, and the casts and impressions of *limnaea*.

Mr. F. C. J. Spurrell being interested in the find, we arranged for a joint excursion to be made to the powder factory on 15 November, 1885. I started off in the early morning and reached the factory at 10.30, but he was prevented at the last moment from coming, and although I waited for two hours I saw nothing of him. I made use of the time to examine thoroughly the heap of the stone, and from the considerable proportion of fragments bearing parts of the old surface, and also from the fact that there were two distinct varieties of the stone, the one containing the fossils of *chara* and *limnaea* and the other less consolidated and without any traces of fossils, I reasoned that it must have been found in two or three layers instead of in a thick block as I had at first supposed.

On 19 November, 1885, I started off again in the hope of gaining more information respecting the mysterious stone, and walked to Fawkham. On the crest of the Chalk hill at Terry's Lodge, 770 feet, O.D., I found a quartzite pebble. I passed over the stained gravel bed at South Ash, and noticed a huge spread of the same gravel in a field to the east on Sparks's Farm. Passing on to the hop garden, I found an old palaeolithic implement of a deep orange-red colour on the Tertiary outlier to the north of Ash church. Turning from the road at the Black Lion inn, I took a footpath, and noted a large spread of pebbles and green-coated flints on the shoulder of the hill, and also a chalk pit in a neighbouring wood, where a section of Tertiaries resting upon Chalk was to be seen.

I called on Miss Rogers at Green Street Green to obtain more particulars of the elusive stone. She told me that she first heard of the rock having been met with in the well-sinking operations at the powder factory from one of her farm labourers, who said that the sinkers had reached a hard rock, harder than they had bargained for. On the Sunday following the receipt of this intelligence she and my son, who was staying with her, had driven to the spot, and had found, strewn about, several cartloads of the stone. They had brought home some fossiliferous fragments, which she had sent on to me.

I next interviewed the labourer in question. He had heard of the stone from neighbours, and had visited the scene and looked at it, though only to throw it down again. He thought it was different from anything he had seen before, although, he said, old Jack Glover had

met with a similar rock when digging a well at High Cross cottages. I sought Glover, and found him comfortably seated in the tap-room of the Ship inn. He was in the company of some half dozen of his acquaintances, who corroborated his statement that the rock was reached by the well-sinkers and was much talked about. He described his former find at High Cross, which he said consisted of three or four 'leaves' of rock from two inches and a half to three inches thick. I left fully convinced that the rock had been met with in the well as described.

While Harrison was endeavouring to track down the stone by local inquiry, Prestwich took up the matter with the owners of the powder factory. He afterwards wrote to Harrison telling him of the result of his inquiries :

J. Prestwich to B. Harrison.

17. 11. 1885

I wrote to Messrs. Isler & Co. for a section of the well at the powder mills. This they sent me, but as it seemed to me insufficient, I wrote for further particulars and specimens. The rock they sent was the ordinary green-coated flint from the top of the Chalk. I then sent a specimen of the siliceous stone, and I enclose their reply received this morning.¹

I fear there has been some mistake. We saw none of the rock at the mills, and we got no confirmation of its having been found there.

I fear the rock may have been carted to the spot to mend the road. Vessels are constantly arriving in the Thames in ballast, which often comes in usefully for road-mending. It is common to find rocks from China and Japan on the London roads. When you are next at Green Street Green, can you make some inquiries about it of the road-makers or others ?

Harrison was not able to go to Green Street Green immediately, but the stone turned up in another direction, and in his narrative, to which we now return, he states :

N.—22. 11. 1885. I was crossing a field in the Shode valley above Basted. I followed closely the 300 foot contour line which there

¹ 16. 11. 1885. 'From the foreman to the others none recollect, indeed they speak most positively, as to having met with no such rock as the sample sent. Had such been passed we should have known of it, especially in sinking the well.

'Is it possible that the stuff has been carted from elsewhere for road-making?'

marks the old spread of gravel, and on this I found what appeared to be a piece of the Swanscombe stone. I sent it at once to Professor Prestwich, who wrote :

J. Prestwich to B. Harrison.

30. 11. 1885

There can be no doubt that the last specimen from Basted valley which you sent me renders the matter still more perplexing. It is a specimen never drifted there by natural means. It seems slightly worked, so may have been carried there, or it may, with the other specimen from Stonepits, have been brought there with manure from London. This raises the question whether the whole of the siliceous specimens may be the debris from the millstone yards in London.

What you say, however, about the evidence from Green Street Green, seems to be pretty decisive the other way. Let me know if you hear anything more one way or the other.

On 6 December, 1885, a fortnight after the receipt of this letter, I determined to visit High Cross, and started out at six o'clock a.m. Taking the footpath at the Black Lion inn at Hartley I found a fragment of stone very like Purbeck marble, full of *limnaeae*. By 8.30 I had arrived at the cottages at High Cross, where I interviewed a man named George Stevens. He remembered the rock being found at the powder works : was there one Sunday afternoon and met Miss Rogers, who took some away. She asked him to get her a big piece for her rockery : this he did, and took it home, but forgot to take it to her.

I walked on to the gravel-bed near Fawkham station, about twelve or fourteen feet deep, and following it upwards from the lower end I came upon yet another piece of the stone—a perfect specimen containing many fossils.

To my letter describing the finding of this further specimen of the stone Professor Prestwich replied.

J. Prestwich to B. Harrison.

8. 12. 1885

Many thanks for your note and evidence bearing on the disputed point. It certainly tends to confirm the reality of the fact.

J. Prestwich to B. Harrison.

3. 1. 1886

I still feel too uncertain about the Green Street Green rock to give any account of it. I should say there was a hard rock, but at a lower level, and, from the specimen they sent me, evidently quite at the base of the Thanet Sands and on top of the Chalk. We must wait further evidence.

My next visit to the Green Street Green district was in the early spring of 1886. On 16 March I walked with a friend to that place, as I had been informed that fossil bones—horse and elephant—had been found there, from fifteen to eighteen feet below the surface. With the object of gaining more information respecting the Swanscombe stone, we lunched in the tap-room of the Ship inn, getting into conversation there with an old man and a youth. Both of them distinctly remembered the piercing of the rock in Bean well. It was in several layers, 'and precious hard it were, too'. The youth was positive in his assertion that the stone was removed from the well and used to repair the road, which was then being widened and drained. Sam Venn of Dartford was named as one of the men employed in sinking the well.

The last statement drew us to Venn's house on Dartford Brent, but he was from home, working at Crayford. We noted a large block of quartzite on the Brent, and also drift beds, some twenty feet deep, containing much chert and ragstone.

Some eight weeks later came the final explanation of the mystery in the shape of a letter from Miss Rogers, who wrote that she had been informed by Morgan, the well-sinker, that the stone was brought from Bevan's cement works at Northfleet and placed close by the well as it was needed for the repair of the road.

I informed Professor Prestwich, who wrote in reply :

J. Prestwich to B. Harrison.

20. 5. 1886

I was quite prepared for the result you name. I am very glad you have cleared up the mystery. I had ascertained that French millstones were made up in London, and had concluded that fragments had found their way in some unknown manner to . . . Bean. It is well, however, to have certainty of the fact. I have known for years it has been easy to pick up in the roads about London specimens of rocks from China, India and elsewhere.

The rude fragment of the French stone you found in the hop ground at Stone [pits] was, no doubt, brought there in a load of manure. Note, however, that there was nothing impossible in the occurrence of a siliceous deposit with *limnaea*, *planorbis*, etc., in the estuarine beds of the Woolwich and Reading series.

So ended the matter. The story of the investigation proves the need for testing every statement made. The puzzling point was that a hard rock had been reached in sinking the well. This fact was noised abroad, and visitors to the site of the well concluded, either unaided or with the help of someone who pretended to know without

really having any reliable information, that the heap of stone lying beside the well had been raised from it. Once the rumour was started no one thought of questioning it, although in fact the siliceous rock had been brought from elsewhere, and the rock taken from the well was the ordinary green-coated flint from the top of the Chalk.

And now let it be recalled that an incident of the tracking down of the Swanscombe stone was the finding of the 'old palaeolithic implement of a deep orange-red colour on the Tertiary outlier to the north of Ash church', on 19 November, 1885. Harrison felt that this implement must be placed alongside the palaeolith found by Dr. Evans in 1869 at Currie Wood, and the latter, on seeing the specimen, agreed that it much resembled 'in form and character the Currie Wood specimen'. Prestwich showed his interest at once, and concluded that the occurrence of these relics in the Plateau gravels indicated that man lived in Kent in inter-glacial or pre-glacial times.

The oldest gravels of the Kent Plateau represented the waste of the ancient land surface that formerly existed to the south of the Chalk escarpment—the vanished uplands of the Weald. The slopes from the anticlinal ridges that crossed the Wealden area from west to east, extended in both directions, northwards across Kent to the Thames valley and southwards across Sussex to the Channel. The rivers must have flowed down the slopes on both sides of the ridges, and old river gravels might be expected to rest on the Chalk hills of Sussex similar to those of the Kent Plateau. If the Kent Plateau gravels were implement-bearing, the gravels occupying like positions in Sussex should also contain implements.

Such was the line of reasoning that occupied Harrison's thoughts after he found the palaeolith at Ash, and he determined to put his views to the test. He was fortunately in a position to arrange for a Sussex gravel to be searched for implements; indeed he had already taken steps to that end.

Mention has been made in these pages of Robert Hilton, who for many years had lived at Ightham and had often accompanied Harrison on his walks in search of fossils or implements, so acquiring a good deal of archaeological knowledge. After

leaving Ightham, Hilton settled at East Dean, a village lying about four miles west of Eastbourne and one mile from the coast at Birling Gap. The village is situate in a dry Chalk valley, and the ridges above it are part of an elevated plain corresponding with the Chalk Plateau of Kent.

Harrison visited Hilton at East Dean in 1883, and recognized on the hills patches of stained, worn gravel, like that of the Kent Plateau. He urged his friend to search the stained gravel for palaeoliths, and shortly after the first palaeolith was found at Ash, he had the satisfaction of receiving from Hilton a palaeolith found in a similar position at Friston, near East Dean. A letter on the subject written to A. M. Bell, and the notes of a visit to East Dean in 1886, testify to the pleasure which this confirmation of his work in Kent gave him.

B. Harrison to A. M. Bell.

13. 12. 1885

Two years ago I joined an excursion party from Sevenoaks to Eastbourne. I found many friends in the train, but on reaching the town I deserted them all and determined to spend the day in a ramble, and a search on the downs near Birling Gap.

I called on a friend in East Dean village. I had to explain my object, and I found him much interested. In the course of our walk down to Birling Gap he remarked, 'This valley is said to have once been the course of the Cuckmere, which now enters the sea near Seaford'.

I thought over this remark, and afterwards, when he came to see me, I spoke to him about it. Having educated his eye as regards palaeoliths and instructed him in the field by explanations as to deposits, etc., I advised him to search well in certain positions along the old valley.

On Friday last I received a splendid old implement of the pointed type, of a deep, rich brown colour—like a decayed beet leaf. The specimens from that district are usually white, and the fact of the old one being ochreous is very interesting and opens up a wide question.

The above letter was written within a month after Harrison found the palaeolith at Ash. The specimen from East Dean, or, more accurately, from the high-level gravel at Friston, was a palaeolithic implement of the same general type—the hill

group—from a corresponding position in Sussex. In relation to the question of the greater antiquity of man, it may be said to have doubled the significance of the finding of the implement at Ash.

In the summer of the following year Harrison spent two days at East Dean :

N.—10. 8. 1886. Drove to Tonbridge and took train to Tunbridge Wells *en route* for Eastbourne. Missed the Eastbourne connection and took a train to Lewes where we looked over the castle and the museum. Took train from Lewes, passing alongside the Ouse for some distance, and then through the valley at the foot of Mount Caburn, an outlier of Chalk. Past Glynde and Polegate, where I thought I could see the old gap which formerly connected the East Dean valley with the Wealden area.

In the afternoon Hilton and I went for a long turn. We inspected, at Birling Farm, a lot of bones and seven or eight skulls found a few days before in a chalk pit just below the house. From the worn condition of the teeth I inferred that the bones were ancient.

Sighted old Blackmore¹ across the fields and walked home with him, having a most enjoyable conversation. In the evening we went to his house to see his collection, and spent a long time in his garret, the floor of which was strewn with some two or three hundred implements. This was the pleasantest evening I ever spent with such a character—a Robert Dick of the South Downs, a diligent observer and collector for thirty years. In his youth he was much with Mark Antony Lower, the eminent Sussex archaeologist, whom he frequently accompanied on excursions, hence his early familiarity with his subject. He seems to have waded through a vast number of scientific and also of 'goody-goody' works, given to him by friends whom he had met on the downs.

N.—11. 8. 1886. Arose at four o'clock. Hilton and I to Friston Mill and across the field to the head of the combe (draining into the Channel) where the ochreous palaeolithic implement was found. This implement seems to me to have lain for long in the Clay with Flints on the crest of the hill, and appears to have been derived from it, the ridges and unwasted area being capped with Clay with Flints. On the unwasted area I found ironstone resembling that from the Lenham beds, some ochreous flint stained and worn as at Ash, and

¹ Stephen Blackmore, a well-known shepherd of the South Downs, and collector of flint implements.

a few green-coated flints. There were few pebbles, but at a lower level on the same ridge I found several quartzite pebbles and one of granite.

We walked down the hillside to Friston House, a fine old Tudor mansion snugly situate in the valley, with its compact well house and sweet surroundings. Back to East Dean to breakfast.

At 9.30, with the children, over the hill by the telegraph wires to Birling Gap. The gap is filled in with drift gravel and trailed chalk.

At two o'clock Hilton and I started, by way of Willingdon Hill, for the Chalk escarpment, where was disclosed one of the most extensive panoramas it has been my lot to see : Hastings anticlinal ridge, extending to Brightling and on to Mayfield, the whole being seen as a relief map or model, thus aiding one to grasp the extremely interesting character of the Wealden upheaval and denudation. I very reluctantly left such a charming spot. On our way along the crest we passed several tumuli on prominent points.

I left Eastbourne at five o'clock, reached Sevenoaks at 7.30 and walked home,¹ arriving at 8.45.

It is now necessary to go back a little in order to record other events.

N.—8. 2. 1885. Message from Evans [a workman] received overnight to say that he had recently steam-ploughed the Bitchet field, so I resolved to go to search over it. The field was not yet in good condition, but I managed to find the tip of a palaeolith, broken in the long past, and also a palaeolithic side scraper. These implements I sent to Grant Allen.

A newly-ploughed field was always a spot to be searched, and when the steam plough had turned up the soil to a greater depth than that reached by the ordinary plough, there was an increased prospect of a find. But, as every field worker knows, flints are not readily distinguishable after ploughing until a heavy downpour has washed them, and Harrison was fortunate in finding two palaeoliths on a field 'not yet in good condition'. The sending of the two implements to Grant Allen shortly afterwards was a characteristic act. Harrison read, in his favourite *Cornhill Magazine*, an article by that writer ² which pleased

¹ Six miles.

² 'A very old Master'. *Cornhill Magazine*, March, 1885.

him, and he showed his appreciation in the manner mentioned in his note.

The bed of stained gravel at Parsonage Farm, South Ash, to which Harrison drew Prestwich's attention in 1884, and on which the former states that he found worked stones, has already been mentioned.¹ These worked stones were chipped only round the edges, and although Harrison was gradually becoming confident that the chipping was the work of an ancient race of men, he did not at once make such a claim, nor did he submit them either to Prestwich or to Evans. He placed the stones in a box in his garret-museum, and wondered. Of one of them, No. 464 in his collection,² he felt fairly certain.

On 5 April, 1885, Henry Walker, the geologist who had come to see him in 1884, visited him again, and spent a considerable time in going through his growing collection of implements. After a time Harrison opened the box containing No. 464, placed it in his visitor's hands, told him where it was found, and asked for his opinion of the specimen.

'It is certainly worked, and very interesting, but the height at which it was found is revolutionary', was Walker's verdict. Harrison has stated that he was greatly cheered by this confirmation of his own views. However, he was not even yet certain enough to send the rude implement to Prestwich, and No. 464 remained in 'suspense account' for three years longer. In the meantime he assiduously searched the Plateau for further evidence.

The following note records one of the periodical pilgrimages to Woodlands, the church among the hills :

N.—20. 9. 1885. [With family and friends—a party of nine in all—] to Woodlands church, *via* Knockmill. The service was hearty and the hymns were good.

We had a long chat with Mr. Handcock, who accompanied us up the hillside. Refreshments at the Rising Sun.

The Rising Sun is a lonely inn standing on the summit of the Chalk hill at Cotman's Ash, above Kemsing. It was not far

¹ See page 109.

² This stone is now in the Maidstone museum.

distant from some of the Plateau gravels, and, after leading his geological friends to his hunting grounds, Harrison would strike across country to the Rising Sun, both for the bread and cheese and shandy-gaff which it provided, and for entertainment of another kind.

The hostess at the inn in those days was a pleasant, good-natured woman, alert to minister to her customers' needs, and not without interest in their conversation. One day Harrison related a story—it is an old one, but it will bear re-telling here—to a party of geologists, while refreshments were being served.

Two undergraduates, who were fond of hunting, once found themselves after a long day's run, many miles from home, not a little tired, and exceedingly hungry. Dismounting near a solitary cottage, they knocked at the door, and asked a country woman who appeared whether she could provide them with a meal. The woman was full of regrets, but she had nothing that they would care to eat.

'Oh, but surely you have food of some sort', said one of the undergraduates. 'We are famished. Could you not get us some bread and cheese?'

'Why yes, sir', was the answer. 'I have plenty of cheese, but I did not think gentlemen like you would care for bread and cheese'.

'Rather. Please put it out, and give us plenty of it'.

'Well then, sir', said the woman, speaking with some hesitation, 'I made a country meat pie on baking day, but it is very plain. Would you like to try a piece?'

'A meat pie? Splendid! By all means let us have it'.

The pie was placed on the table. The woman, being the mother of a large family, had made it in a shallow milk-pan, but so hungry were her visitors that they demolished the greater part of it. They afterwards called her in and complimented her on her cooking.

'We are supposed to have some first class cooks in Oxford, but they never give us pies equal to this. Tell us, now, what do you make it of?'

'Well, sir, besides the pastry, there's a little beef and a piece or two of pork and an onion. I don't think there is anything else'.

'Oh, but there is fish in it also, surely'.

'Fish, sir? No, there is no fish'.

'No fish? Then what is this?' asked one of the undergraduates, pointing to a flat back-bone which lay on the side of a plate.

The woman crossed the room, looked earnestly at the object on the plate, and suddenly threw up both her hands above her head.

'Oh, law, sir', she cried, 'if that ain't our Johnny's small tooth comb. Why, I've lost it ever since last baking day!'

As the climax of this story was reached the hostess of the Rising Sun was bringing in the shandy-gaff. Placing her tray hastily on the table, she too threw her hands above her head and laughed so heartily that her artificial teeth threatened to drop from her mouth, while her customers were speedily reduced to a state of collapse.

For several years after the first telling of this anecdote, if Harrison found himself with friends in the neighbourhood of the Rising Sun, he would call at the inn and take an opportunity of repeating the story, in order to give his companions the pleasure of witnessing the landlady's hearty enjoyment—which never seemed to grow less with repetition.

N.—11. 10. 1885. By train to Shoreham, to obtain the specimens from Shrub Hill which the Professor had promised me. At his suggestion I returned by way of the Priory and Upper Austin Lodge. At the base of the hill, on the unwasted patch of white flint, I found many white cores and flakes. On the ridge of the Chalk hill I found a large spread of iron sandstone. This is a patch I lighted on many years since, but until this day I had not again visited the field.

N.—17. 1. 1886. Having received a presentation copy of the first volume of Professor Prestwich's *Geology*, I resolved to do a good walk before sitting down to read it. I accordingly rose at 5.30 and walked across to Shoreham. On returning, by way of Sevenoaks, I slipped into the field at Seal to try and find something special for the Professor to send with a letter of thanks.

Three minutes' search yielded a fine pointed implement, close by the spot where the former finds were made, on the shoulder of the eastern hill, across thecombe.

The finding of the first palaeolith on the Plateau was quickly followed by similar finds, and, during the three years 1886-8, Harrison obtained more than a score of these implements. His finds of palaeoliths were all recorded, and the implements were sketched in his catalogue and numbered, but his visits to the Plateau were not always the subject of an entry in his notebook.

The finding of twenty palaeoliths in three years may not appear to be a striking result of his work in comparison with the larger numbers of such implements that he had obtained in a much shorter time from Oldbury and the Shode gravels. It must, however, be remembered that the Shode gravels lay at his very door, whilst in order to reach even the nearest point of the Plateau, he had to walk a distance of two miles or more, and to ascend a hill that rose to a height of 450 feet above the level of Ightham village. The implement-bearing drift at Ash lay six miles from Ightham, and other Plateau gravels were still further away. When allowance is made for the distance covered in searching at a selected spot, and the return journey, it becomes evident that considerable time was required for a journey on foot to the Plateau in search of implements.

N.—18. 2. 1886. Driven to Meopham. Crossed the fields to the left of Meopham Green, passing over patches of Tertiary pebbles left on the ridge there, which forms the dividing line between the Darent basin and the valleys which drain north towards Gravesend. At Idley Farm (farmhouse a fine old Queen Anne building) the Longfield crest is passed.

On to Ash and Kingsdown. Near the Porto Bello inn, Kingsdown, I found fragments of the same stone as at Bower Farm.

On to Knockmill. In the Birches Wood I came across a keeper's oak, where there were hanging no less than fifty-eight weasels and stoats, four hawks, two carrion crows and fourteen jays.

N.—16. 3. 1886. To Longfield, where in the churchyard is a massive granite tomb weighing, possibly, five tons. My thoughts naturally turned to the means of exit from so cyclopean a resting-place, and apparently those who erected the monument felt this difficulty, for the inscription is a direct appeal, 'In the Day of Judgement, Good Lord deliver us'.

On 8 June, 1886, Harrison visited, first, the Seal gravel-bed—'but recent work by a nidget¹ had obscured everything'—and afterwards the Limpsfield gravels, returning by Westerham and Shoreham. On 14 July he received the members of the Tunbridge Wells Natural History Society, conducting them to

¹ An agricultural implement—not a nidget of the kind referred to on page 7.

the rock shelters at Oldbury and showing them his collection of flint implements.

Harrison was a great admirer of Oliver Wendell Holmes, whose 'breakfast table' works he had possessed for many years. He read and re-read these books—especially the *Autocrat*—marking in the margins many passages that appealed to him.

His original copy of the *Autocrat of the Breakfast Table* became dilapidated from constant use, and was rebound. Some of the marginal marks and notes have been obscured by the re-cutting of the edges. Pasted inside the covers are a letter to Harrison from Alfred Russel Wallace, the naturalist, several newspaper cuttings relating to Holmes and his writings, and an original letter from Holmes. He visited this country in 1886, and Harrison took advantage of the occasion to write him a complimentary letter with regard to his published works, sending him as evidence of his admiration his treasured and battered marked copy of the *Autocrat*. In reply Dr. Holmes wrote as follows :

Oliver Wendell Holmes to B. Harrison. Salisbury, 20. 7. 1886

I have been much pleased in looking over your copy of *The Autocrat* to see how faithfully you had read it, and how you fixed on the passages I would have had you choose had I been at your elbow.

The 'Editor' had no business to divide the book into 'Breakfast 1', '2', etc. The talks are supposed to have been gleaned from various breakfasts.

I return the copy by book post, with many thanks for the privilege of looking at it.

N.—25. 9. 1886. Dr. Evans and Professor Seeley came over from Sevenoaks. A few days before I had arranged all my implements in my garrets—the old place was, therefore, honoured by their presence. Owing to their having visited the Seal bed, Stonepits, and Oldbury on their way to Ightham, their stay with me was short, but I conducted them to Church Field, Bay Shaw, Robsacks, Furze Field, Oldbury Farm, Oldbury Place, and Buley. Dr. Evans expressed the view that implements might be found all down the Buley valley.

N.—28. 11. 1886. Examined the Chalk pit at Wrotham. Some immense pipes, consisting of sand and Oldhaven pebbles, but no ironstone.

XVI

1887—AGED 49

FOR some unexplained reason Harrison's notebook contains no entry between December, 1886, and 14 August, 1887. He continued to increase his collection of implements, visiting the drift beds as opportunity occurred, but for a period of several months he went seldom to the Plateau. There was a reason for this abstention which he has told in a note.

N.—One day, having just found an implement at Ash, I was walking along in a leisurely manner beside the footpath, when two men approached. One of them, a giant in stature, who was obviously intoxicated, came up to me, and without a word of warning struck at my head. I dodged his blow, but his fist caught the holder of my cigarette, knocking it a considerable distance away. I picked it up and made for the further end of the field in which I was searching, leaving the man who had struck at me with his companion.

After a lengthy search over the gravel-bed I returned through the churchyard to Ash, where I again saw the drunken bully. He was on the ground, held down by his companion. I called on a brother-in-law who lived at Ash, and while we were talking my assailant appeared at the door of the house. My brother-in-law went out to get rid of him but was knocked down, and the local police constable who was summoned was also assaulted. Finally the madman was bound hand and foot and conveyed in a cart to Dartford, where he was prosecuted and sentenced for the assaults.

On my relating the incident to my wife after my return home, she begged me not to go again to the Plateau alone, and my visits were greatly restricted in consequence—the Professor in the meantime inquiring anxiously about fresh finds at Ash and encouraging me to go there.

On 20 April, 1887, Harrison made the acquaintance of de Barri Crawshay of Sevenoaks, who visited him at Ightham, examined his implements and, after one or two more visits, became himself a student of archaeology and an ardent field worker. Harrison took him to Ash and elsewhere, and Crawshay set himself the task of examining the gravels lying on the Plateau to the west of the river Darent, and therefore outside the area covered by Harrison in his ordinary walks. He found here evidence corresponding in all respects with Harrison's finds between the Darent and the Medway.

Brief notes exist of visits to Dunstall and Cotman's Ash on 10 October, and to Maplescombe, Knockmill, and Kingsdown on 6 November, 1887. All these places lie on the Plateau. On 12 December, Harrison went to Limpsfield, taking a 'hasty look over a field near the hollies', but devoting most of the time available to an inspection of the palaeoliths collected by A. M. Bell. Bell was working in association with Harrison, and was one of the first of his scientific friends who saw, and who accepted as artificial, the coliths. He visited Harrison at intervals, accompanied him to the Plateau, and passed with him slowly from doubt to conviction as regards their character.

2. Harrison to A. M. Bell.

1887

The friend whom I thought of bringing over some day is intent on unearthing the Romans, and so we have been tracing roads, etc., leading from a villa down the Basted valley to a fording place on the Medway. It has been an agreeable change.

I have taken many long walks, viewing things through Richard Jefferies' spectacles. One, yesterday, was delightful and indescribable. I arose early and was able to start at sunrise. The walk over the hills, through the valleys, to earth-works, a ruined chapel, Tertiary outliers, the home and workshop of man at 400 feet O.D., and a general stocktaking and noting of Nature at her best, was to me the best of restoratives after a week of worry and vexation.

Harrison's route on this occasion can readily be identified. The earth-works are on the Plateau at Goodbury, the ruined chapel is in the Maplescombe valley, and the Tertiary outlier at Knockmill.

XVII

1888—AGED 50

FOR several months before the beginning of this year Harrison thought he detected a falling-off in Prestwich's interest in his work and was not a little disappointed in consequence. Prestwich corresponded less frequently than before, and appeared to be disinclined to devote much time to the examination of implements that Harrison occasionally sent to him. The explanation was simple. Prestwich was seeing through the press the second and final volume of his textbook on geology, and while he was doing this he was unable to undertake any other work. That he was not really indifferent to Harrison's discoveries was shown by the celerity with which he turned to that subject after completing his book.

J. Prestwich to B. Harrison.

4. 1. 1888

I have now finished the second volume of *Geology*, which will, I hope, be out about the end of the month. I shall, therefore, be ready to engage in some other work, and if you are still of the same mind I will take in hand and describe your 'finds' of palaeolithic flint implements round Ightham; and see, if possible, whether any further conclusion can be drawn from them.

Finding them in such extraordinary numbers and at such various levels is certainly a very novel feature.

To do this will involve a good deal of work on your part, and some on mine. So we should have to take time about it, and if you will let me have the particulars I require in the course of two or three months, it will do very well.

To show properly the distribution of the specimens, it will be necessary for me to illustrate the paper by a map.

So I propose taking a district from the Darent on the west to a

little beyond Malling on the east, and from Ash in the north to Hadlow on the south.

On this the contour lines of 100 feet must be drawn in red or yellow, and the position of all your 'finds' marked—those found in gravels to be marked by blue dots and those found on the surface to be inserted in red spots.

For these, colours that do not run must be used. This must be accompanied by a table or list, giving the position, height, colour, etc., of all the specimens, upon a plan of which I will send you a sketch.

This sketch and the maps I will probably send you to-morrow. The maps I will send in duplicate—one set to serve as a rough copy and the other, when finished, for the Geological Society.

The drift beds I will insert afterwards.

You must not hurry this work, but just take your own time and leisure about it. It will do if it is finished in the course of the summer.

On receipt of Prestwich's letter, Harrison entered heart and soul into the programme of work sketched out. He was eager to begin at once, but the letter had reached him on a Thursday morning, and it was not until Sunday that he had leisure to devote to the subject. His diary for Sunday, 8 January, speaks for itself.

N.—8. 1. 1888. Awoke at 2.50 a.m. As I could not get to sleep again, I resolved to get up and copy and arrange the list of implements. Began at 3.15, and continued till 6.10, then to bed. Renewed my work at 9.30, continuing till twelve, when I walked to Oldbury Farm. Work recommenced at six and finished at eight. The slavery is now finished.

Above 500 feet, O.D.	-	-	-	-	22 implements
Above 400 feet, O.D. [and under 500 feet]	-				199 implements
Under 400 feet, O.D.	-	-	-	-	184 implements
Total					405 implements

The 'slavery' was the task of examining catalogues and classifying the implements as desired by Prestwich.

The 405 implements mentioned were all palaeoliths, and had been collected during the seven years and a half that had elapsed since August, 1880—that is to say, at an average rate of rather

more than one implement a week during the whole of that period.

Harrison may now be pictured as in very frequent correspondence with Prestwich, working largely under his direction, visiting specified localities to verify facts concerning the composition of gravels, etc., answering numerous questions—some of which required a day's journey to obtain the material for an answer—and calling regularly at Darent Hulme, when Prestwich was in residence there, to report progress, talk over matters of common interest, and obtain further instructions. Prestwich was a kindly and most loveable leader to work under—Harrison usually referred to him as his 'master'—pleasantly exacting in his requirements, and insistent on the need for precision and for the verification of all facts and references.

An article in the *Nineteenth Century* for November, 1887, entitled 'The Antiquity of Man in North America', by Dr. Alfred Russel Wallace, led Harrison to communicate with the author, who replied as follows :

A. R. Wallace to B. Harrison.

20. 1. 1888

I am glad you find my article on 'The Antiquity of Man in America' interesting. It is astonishing the amount of incredulity that still prevails among geologists as to any possible extension of the evidence as to greater antiquity than the palaeolithic gravels. The wonderful 'Calveras skull' has been so persistently ridiculed, from Bret Harte upwards, by persons who know nothing of the real facts, that many American geologists even seem afraid to accept it. . . .

In writing to Dr. Wallace, Harrison described his own finds of implements in the high-level and Plateau gravels, and claimed for them a high antiquity. Wallace corresponded with him respecting these finds, and, as will be seen from a later chapter, came afterwards to Ightham to see for himself the sites of Harrison's discoveries.

N.—16. 4. 1888. Professor T. G. Bonney came. We walked across Seven Acres to the Furze Field, and examined the blocks of green sandstone lying near. To Fane Hill, Ives, along to the rock shelters, on to the sandpit, where we closely examined the blocks of Oldbury

stone *in situ*, across the hill to Styant's sandpit, and to Carman's lock [of Oldbury stone]. Up the valley to Beacon Mount.

N.—3. 6. 1888. [With three friends] from Sevenoaks through Knole Park to Wimlet Hill.¹ We examined the old road leading from Lawke Common to Bitchet Common, and the supposed Roman cemetery close to the road. We met the foreman, who gave us information as to the numerous finds. To Raspit Hill, Rose Wood, Oldbury and home.

N.—12. 6. 1888. Mr. Allen Brown² came at 1.30. To High Field, Basted, the railway section,³ Fane Hill, and Oldbury rock shelters. After tea, in garret.

N.—29. 7. 1888. To Wrotham, up Rigg's Hill. On the ride, close to the site of the old telegraph house, I hit upon a patch of Tertiary pebbles.

N.—31. 7. 1888. Took a run up to Telegraph Hill, and found the patch of pebbles extended some distance into the field.

While Prestwich was getting together the material for a paper on the Ightham palaeolithic implements, Harrison behought himself of the chipped ochreous flints which he believed to bear the work of man. Amongst them was a large flint bearing characteristic eolithic work, which he named the 'Corner Stone'. This implement has a story connected with it, a story that Harrison told in a letter.

B. Harrison to Worthington G. Smith. No date

In the early days of my flint hunting, I was keen upon some gravels on the exact water-parting between the Darent and Shode basins. Here I lighted on deeply stained flints, rudely worked, which I described to you as 'missing link' specimens. One of them—which I now call the 'Corner Stone'—I put among my palaeoliths in 1881 when, being strictly orthodox,⁴ I was visited by Drs. Evans and Prestwich.

I had arranged my special spoil on a table in front of a window. I wanted to note the effect produced on my visitors by my specimens, so while they were examining them, I pretended to be scraping mud from my shoes, immediately outside the window, but at the same time I was able to see all that they did.

¹ Or Wilmot Hill.

² Author of *Palaeolithic Man in Middlesex*, etc.

³ Either at Borough Green or south of Ightham Court.

⁴ i.e. not yet having embraced the eolithic 'heresy'. Worthington Smith was himself a member of the 'orthodox' school of thought.

Dr. Evans pounced upon a patriarchal implement from Fane Hill, passed it to Prestwich, and made some remarks upon it. Then he took up my best white specimen, and others, and finally he examined the 'Corner Stone'. This he eyed very carefully, turned it over again and again, laid it down, took it up and once more examined it, but finding no bulb of percussion, put it down and shook his head.

I deferred to the opinion so expressed, and the 'Corner Stone' was consigned to my waste heap. It was retrieved and placed again in my collection several years afterwards, when I had begun to feel confidence in my own case. During the intervening period my development was arrested.

The above letter then related how in return for a flint received from Worthington Smith on which he had made a sketch of an 'eolithic' man, Harrison made sketches of similar beings on three of his stones.¹ It continued :

Next, I took the 'Corner Stone', and on it drew a picture of an Eskimo. I marked this, 'the stone which the builder rejected'. I intended to have sent them all to you, but my folk said, 'No, keep them, some day they will be prized'.

An illustration of the 'Corner Stone' appears on the opposite page. This stone bears very bold work on the upper half of the edge facing to the left, and is chipped, less boldly, round the base. The right-hand edge bears no marks of artificial work at all. The 'picture of an Eskimo' was drawn on the flat face of the flint not shown in the illustration. The Eskimo bears a close resemblance to Robinson Crusoe.

The 'Corner Stone' was consigned temporarily to the waste heap in 1881, and Harrison suffered for a time, as he said, from arrested development. But not for long. Another eolith, No. 464, which found favour in his eyes before 1885, has already been mentioned.² In the following letter he declares himself to have been finally convinced by an implement found on 15 February, 1886.

B. Harrison to E. Harrison.

Spring, 1900 ?

The question has often been put to me, 'Did Prestwich first discover the rude implements, or yourself ?'

¹ See note, 20. 10. 1895, page 201.

² See page 121.



THE 'CORNER STONE'

In going through my notebooks, in order to index all matters of importance, I found that I was able to fix the time when dawn merged into actual day : when, after hesitating, I became convinced. My 'convincer' was found on 15 February, 1886, and the first recognized and accepted by Prestwich, an implement which I had found many years before, was in 1888.

The implement last mentioned was No. 464, which had been accepted as artificial by Henry Walker when it was shown to him on 5 April, 1885. Harrison was about to send Prestwich for examination all his palaeoliths found above the level of 500 feet, O.D. Taking his courage in both hands, he included No. 464, and—on 12 July, 1888—forwarded the parcel without comment. By return of post came the message, 'If you have any more stones like No. 464, send them on at once'.¹ The day of the rude implements—the coliths—had dawned.

This incident will bear repetition in Harrison's own words. It is not mentioned in his notebook, but he told the story in a letter written many years afterwards :

B. Harrison to Lewis Biggs.

25. 5. 1912

On Sir Joseph Prestwich taking up my work in 1888, I was asked to send him all my spoil in hand, and, first of all, the implements from the 500 to 600 foot level. In the consignment I placed one of the rude chipped specimens, as a fly to see whether he would rise. A letter came next day to ask if I had any more of the same sort. I at once went to my store in the garrets, and sent on others. He then moved, and the first specimen [No. 464] was included in the stones figured in his paper.

Prestwich then told me that he had noted in the past flints bearing edge chipping which puzzled him, 'but', he added, 'it will not do to found a theory on a single specimen'.

In connection with the geological questions affecting the Gougham implements, Prestwich arranged to take a considerable number of excursions to the drift beds in Harrison's company. The first excursion was postponed owing to the indisposition

¹ In a letter dated 13 January, 1916, to Mr. F. N. Haward, Harrison, in describing this incident, stated that Prestwich 'in a return letter—giving an outline of the specimen [No. 464], asked, "Where did you get this, and have you any more?"'

of Prestwich, and Harrison asked which sites he himself could most usefully visit in his leader's absence.

B. Harrison to W. M. Newton.

No date

In 1888, when Prestwich and I were about to begin our series of excursions, he was taken ill, and I wrote to know whether there was any spot he would like me to visit.

He replied, 'Go to the Tertiary pebble bed near Crowslands and examine the Tertiary clay near Terry's Lodge'.

In his *Life*¹ the latter was altered to drift clay.

Harrison considered the 'Tertiary clay near Terry's Lodge' significant in relation to the question of the antiquity of the Plateau implements, and, accordingly, he was anxious that Prestwich's actual phrase should be preserved in its original form.

The first excursion with Prestwich took place on 14 August, 1888.² This excursion and others were recorded in the current notebook, but Harrison extracted some of the entries at a later date, occasionally amplifying a passage or adding a note or a comment. Of the series of excursions generally, Harrison observed that his original notes were terse and crude, and that much more lingered in his memory than could be committed to paper. The journeys, although in the main devoted to serious geological work, were full of minor incidents not included in the original programme. Here was a striking natural feature which Harrison felt bound to point out, there was a dene hole, a Sarsen, or other object of interest. Sometimes a detour was made to secure a favourite Chalk flower, often a gap in hedge or wood commanded one of those wonderful views over the Weald that cannot be passed without admiration. A strange bird seen unexpectedly, or a stoat chasing a frightened rabbit, served to turn the conversation for a moment from the composition of gravels to lighter topics. Owing to Prestwich's advanced age—he was already seventy-six in 1888—he brought

¹ *Life and Letters of Sir Joseph Prestwich*, at page 341.

² The extracts that follow are arranged chronologically, and do not relate only to excursions in which Prestwich joined. His name is mentioned in notes of excursions in which he took part.

his carriage on these excursions over the Chalk hills, leaving it, as occasion required, in order to cross a field to a drift bed, and now and again undertaking a walk across country, the length of which caused Mrs. Prestwich no little anxiety.

N.—14. 8. 1888. Met Professor and Mrs. Prestwich at Heverham. We inspected the drift in the combe leading to Drain Farm—a very remarkable feature. From Wrotham we proceeded to Highlands, to see the capping of flint on the hill there, which Professor Prestwich thought was of glacial age. We walked across to Windmill or Gallows Hill, and thence to Bassett's Farm brickfield, in order to see the flint drift on the Gault, which was exposed in a section in the brickfield.

The drift below Drain Farm was the result of a great rush of water caused by the heavy rainstorm on 31 July last, when about three inches of rainfall were recorded in two hours. A gully was cut out no less than five feet in depth, and this fact is so striking an example of the great power of denudation possessed by a rush of water that Prestwich thinks that it should be recorded. I was afterwards informed of another gully cut out in the road near the Fox and Hounds inn, Darenth Wood. This gully was stated by the highway surveyor to be thirteen feet six inches in depth, over 1000 [cubic] yards of debris being washed down.

N.—19. 8. 1888. [With two friends] to Cobham. Noted the pebble beds and Thanet Sand to the west of the church, and some ochreous flint, the staining being exactly like the flints on the Ash bed. On the outlier we found lily of the valley and *thallus impatiens*. We descended the dene hole on Birling Lees and found hound's-tongue close by. We continued westward along the escarpment, striking off through the woods past Little Commodity. On the way I noted a few patches of pebble beds west of Fowler's stone.

N.—23. 8. 1888. A dull, wet morning, which, however, cleared later. I met, at Borough Green, Professor Prestwich, Dr. Evans and Mr. Topley. Our route was past Crow Hill, Mount House, Crouch, Old Soar, Dunks Green, Starve Crow, Little Park, Buley, and High Field. The last especially took Topley's attention, and he promised to come again and also to send a member of the staff of the Geological Survey to note and map the gravel spreads round Ightham.

B. Harrison to W. J. Lewis Abbott.

No date

When Topley, Prestwich, Evans and I in 1888 explored the Shode valley together, as far as the outlier at Starve Crow, I had Topley's work on the Medway and quoted from it, also producing the book.

He remarked to Evans, 'Only fancy being confronted with a geological work written twenty-five years ago!'

N.—29. 8. 1888. Met Professor and Mrs. Prestwich at the four went's.¹ To Wrotham, where we lunched and had a peep at the church. We took a fresh horse and drove to Offham, turning back along the old lane towards Comp to the implement-bearing flint drift. On to Malling, and up the lane past the Abbey grounds to a section by some cottages. To Larkfield Heath, New Hythe, and Leybourne Castle, returning to Wrotham at 5.30.

N.—2. 9. 1888. To Fawke Common, Single Beech, and Rooks Hill, finding one piece of ochreous flint on the crest. On to Shingle Hill and home by Dinas Dean. In the evening I examined the gravel in Great Field, west of Court Lodge : Gault capping on top, flints and a few Tertiary pebbles.

N.—3. 9. 1888. Buley field cut : walked across it, finding one very pretty little implement and one flake in Parsons Brooms hop garden.

N.—17. 10. 1888. Met Professor and Mrs. Prestwich at Broad Oak. To Seal Chart gravel-pit (chert), and the Crown Point brick-earth. Looked at section above Ightham Knoll : Oldbury stone. After lunch, to Cop Hall, Ivy Hatch, Buley Field, and Sheet Hill, where we noted the remarkable travelled boulder. To the hill-top to see stones in wall. Back past Crowhurst to Borough Green and on to Yaldham, where I left them. In returning through the fields, I noted the large block of Oldbury stone lying near the gate to the south of the house. It has on it the broad arrow marking the 400-foot level.

N.—21. 10. 1888. With Henry Lewis to Sheet Hill : found a block of Oldbury stone in the plantation north-west of Polly Patch's. To Wrotham Hill Park, Cold Harbour Farm—noted earth-works east of the house—Stansted, Ash : found several ochreous, scratched flakes. Home via the stained gravel-bed.

N.—23. 10. 1888. I walked to Ash by way of Fairseat and Ridley. At Hodsoll Street I noted the extensive spread of black pebbles—no ochreous flints. I crossed the valley to White Ash Wood, and on to Ash hop garden, where I soon found two flakes, ochreous and striated.

At Ash I met Professor and Mrs. Prestwich. We walked through the churchyard to the hop garden (Ash plain), viewed the configuration, searched, and found a fragment of an implement, and afterwards a large flake, *in situ*, in the bank by pond. We went on to the South Ash patch and made our way home via South Ash Farm.

The South Ash patch, as I have always called it, is a spread of

¹ A mile and a half north of Ightham.

the old gravel on South Ash Farm. I was deeply interested in this high-level drift bed and had obtained several palaeolithic implements from it. It was a mere accident that led to its introduction to the notice of the Professor. We were returning from Ash, and were driving quickly in order to reach Shoreham before the chill air of evening came on. As we neared the field over which the gravel was spread, a traction engine approached, and the horse grew restive. I suggested that we should turn into the field until the engine had passed, and, the carriage having been drawn well inside the gate, I persuaded Professor Prestwich to walk across to the drift, which was now but a few yards away. He at once became as deeply interested as myself in this relic of bygone times, and made a note of the spot in order that it might be marked on the map, which was to illustrate any paper that he might read.¹ When, later on, another and a vaster spread of the same gravel was found at West Yoke, the connection of the two drifts became apparent: both lay within the ancient valley of the same prehistoric river.

B. Harrison to A. M. Bell.

29. 10. 1888

During the past two months I have been on five excursions with Professor Prestwich, and these journeys have necessitated extra 'make sure' visits which have kept me well employed on Sundays.

On Tuesday last we visited Ash, and had a delightful drive about the well-nigh inaccessible points, and up and down steep roads of a character reminding one of a corrugated roof on a large scale. It was the more enjoyable as the Professor had worked much over this area in his early working days, but had not visited it for a long time.

The Ash position, and the number and interesting character of the finds, evidently interest him very much; and, between ourselves, the striations on the specimens found there are exciting his curiosity.

Mr. Henry Lewis, from Camberwell, was here last Sunday, so, as I wished to pay a preliminary visit to Ash, I piloted him to the bed.

He is an authority on striations, having for many years been familiar with the stones found in the Finchley deposit; and, without my referring to the subject, he raised the question of striations on stones found by me. I submitted two of his [striated specimens] to Professor Prestwich, who offers to show him his own collection the next time he visits me.

¹ In another note Harrison records Prestwich's instructions to him to note on the map, not only definite drifts, but 'even a sprinkling of the ochreous gravel'. These instructions caused Harrison to survey the Plateau area, and he soon discovered other patches of the drift.

Lewis is a shoemaker, but a veritable Robert Dick, having visited Snowdon, Brandon, Bembridge, the Weald, etc., on geological and archaeological trips. He works hard for a week or two, and then on Saturday starts off, returning on Sunday night. In this way he has covered a vast area, and has got together a big collection of implements, bones, and pottery.

N.—6. 11. 1888. With Crawshay to Drain Farm. On by Crowslands to Kingsdown, Crowhurst : noted a few fragments of ochreous flint. On to the stained bed [at South Ash] but found nothing. At Ash we paced the hop garden and found seven ochreous flakes and one implement, the last deeply stained, ochreous. Two quartzites.

N.—11. 11. 1888. Fog all day. Corresponding, and copying letters into notebook. Took a walk to Tyer's Knoll in the afternoon. Found no flints, only decomposed chert similar to that on Furze Field, Fawke Common, and Larkfield Heath. It almost resembles pumice stone. The Furze Field deposit may be derived from the break-up of similar deposits at higher levels on light sand.

While Harrison continued field work Prestwich was preparing his paper for the Geological Society, which by the month of December was approaching completion. Harrison was asked, from time to time, to supply or to verify facts, to fill in the lists of implements and localities, and to mark on a map the sites of his finds.

J. Prestwich to B. Harrison.

11. 12. 1888

Do you know the thickness of the gravel on Gallows Hill, and at Malling ?

When at Oldbury Place I omitted to make a note of the gravel. Can you give me the component parts and their relative proportions ?

I herewith send you pp. 14-16 of my paper. Please fill in the lists relating to your collection, and return at leisure and corrected . . .¹

¹ The present opportunity is taken to correct an error in Prestwich's paper as printed in the *Quarterly Journal of the Geological Society* for May, 1889, at page 281. The line reading '(Locality :) School-field, N.E. of Ightham; (Number of recorded specimens :) 46 ; (Height above the sea-level :) 270 ;' is a telescoping of two separate entries in Harrison's original list of implements, and should have read as follows :

Localities.	No. of recorded specimens.	Height above the sea-level.
Stone-pits - - - - -	46	400 to 433
School-Field, N.E. of Ightham -	1	270

I also send you rough copy of map for your suggestions and corrections, and for your insertion of the localities of the flint implements. These should be put in as dots of vermilion . . . where your [finds] are numerous you can put in three, four, five, or six dots.

It will be desirable to insert the contour lines. I regretted to find those you inserted before too thick and prominent. Could you, at your leisure, insert a fresh set on this map and in very fine lines of different colours ? . . .

See whether the drift outliers are correct on all. You must take your own time about this. . . .

N.—23. 12. 1888. To Oldbury Place, noted the gravel—a few pieces of yellow chert, flint, and Tertiary pebbles. In the afternoon to the four wents and across to the dividing ridge above the Pilgrims' Road : one quartzite pebble and a good deal of ochreous flint. Up the combe to Terry's Lodge.

N.—25. 12. 1888. At 8.30 to Ash. Searched and found flakes and one fine, green-coated, palaeolithic side-scraper scratched and pitted, one flake very closely pitted on the worked part.

The green-coated palaeolithic side-scraper or flake was submitted to Prestwich, who referred to it in the following letter :

J. Prestwich to B. Harrison.

29. 12. 1888

The map I want lightly coloured is your large square one, which I have here and will send you on Monday. The contour lines in my map are so faint that I may not have put in all the blue quite correctly. Around Ightham the colour must not extend higher than the 340 feet contour, around Basted 320, Dunks Green 300, and Hamptons 270.

I omitted by oversight the patch of drift at South Ash.

I suppose you hardly know enough of the red Clay with Flints on the Chalk downs to tint it in ?

I thought you had found above 400 specimens, but your numbers in list only amount to 347.

The large flake of green-coated flint from Ash is interesting. I must figure one specimen from Ash showing the ferruginous incrustation. . . .

In a letter of 20 December, 1888, relating principally to the coming paper, Prestwich wrote, 'Several of the flakes you sent me I think are neolithic'. Harrison copied this letter into his

notebook, and—differing for once from his leader—opposite the sentence quoted he inserted an underlined comment in red ink, '*Not so, palaeolithic*'.

N.—30. 12. 1888. To Gallows Hill. Large block of Oldbury stone (?) lying in the wood near the ditches to the left of the road, not far from the footpath leading to Highlands. On the lower spread near the level crossing I found a portion of an implement. Examined knoll, north of rectory : a few pieces of flint were seen, and ochreous fragments on south-west flank.

On Addington church knoll recent graves disclosed drift.

Past East Street, examined the sandy ridge : a large spread of pitted and ochreous flint. Northward, on the Ryarsh side of the ridge there seems to be a mixture of the Holmesdale gravel.

XVIII

1889—AGED 51

THE time for communicating Harrison's discoveries to the Geological Society was now drawing near, and the correspondence that passed between him and Prestwich in the opening days of 1889 related principally to this event and to the selection of specimens to illustrate the paper. He continued to search the drifts till the last moment, adding continuously to the number of his finds and to his knowledge of the gravels.

J. Prestwich to B. Harrison.

I. I. 1889

The great interest of the Ightham specimens is the conditions under which they occur.

The specimens themselves are of well-known forms which have often been figured, and, with a few exceptions, present nothing particular in form. . . .¹

The specimens you have given away should be included in the general list, but not the fragments or ordinary flakes.

The omission from the list of implements given in Prestwich's paper of flakes and fragments of implements is significant in relation to the size of Harrison's collection. He possessed a large number of palaeolithic flakes and not a few fragments of implements—usually tips or butt ends. These flakes and fragments, as he often remarked, though less impressive than complete implements to a mere collector of 'museum' specimens, were of equal scientific value as evidence of the works of palaeolithic man, and to the student were equally interesting.

¹ Of the Ash specimens, Prestwich wrote, on 20 December, 1888, 'The Ash plain group are, however, very different and distinctive'.

N.—8. 1. 1889. To West Peckham and Hadlow. To Peckham Hurst, descended the Greensand escarpment to the ridge east of Adam's Well combe. We found there old pitted flint and some Tertiary pebbles. We kept along at about 340 to 350 feet O.D., and continued to find [pitted flint and pebbles ?] as far as directly north of West Peckham church. At Goose Green pit we found some blocks of Oldbury stone, many flints, much chert, Wealden sandstone and an immense deposit, blackened as if by manganese.

J. Prestwich to B. Harrison.

9. 1. 1889

There were two specimens in a former letter which I considered it desirable to figure :

1st. One of the Ash implements with *iron-peroxide incrustations*.

2nd. One of the natural Ash flakes showing working on edge.

Are these amongst the drawings sent ? . . .

My paper comes on on the 6th February.

J. Prestwich to B. Harrison.

10. 1. 1889

Does the drift at Gover Hill form a regular bed or only a few scattered flints ?

You had better send me the two rude nodules you think worked, unless I have seen them already and passed them.

J. Prestwich to B. Harrison.

18. 1. 1889

The contour lines will do very well, as I will tell the artist to give them different patterns. I have made rather a mess of some of them in trying to put a shade of colour over the Clay with Flints and brick-earths of the Chalk hills. This I have copied roughly from the Survey maps. It will be as well to put this colour on your large map which I send you for that purpose. Let the colour be a *very faint* burnt sienna. The blue is too dark. Try to lessen it. The flint implement finds, make rather darker. Those in the small map scarcely show. To guide the artist you had better mark them by a pin-hole, as I have done in the case of the three finds by Mr. Crawshay.

If anything else requires alteration mention it to me or mark it in pencil in the margin. Do not confine the 'finds' to the patches of drift where they extend beyond [them]. . . .

N.—27. 1. 1889. To Cotman's Ash, Romney Street, Bower Lane, Maplescombe Church, and Kingsdown. Observations of Clay with Flints capping the ridges—absent on the slopes but unremoved in the upper parts or heads of the valleys near Crowslands, Crowhurst, Cock Inn Combe, and Terry's Lodge.

J. Prestwich to B. Harrison.

31. 1. 1889

You can send the map to the Geological Society as soon as you like. The specimens might be sent on Saturday by rail. You had better select about twenty to thirty specimens :

- 1st—from the river gravels ;
- 2nd—from the hill gravels ;
- 3rd—from Ash and Bower Lane ;

keeping each bundle separate and packed in one box.

The list for publication will do within a month.

James Geikie to B. Harrison.

30. 1. 1889

I shall look forward with interest to Prof. Prestwich's account of what you have done. I am glad to hear that what you call my 'prediction' ¹ has been fulfilled. Your implement hunting must have been a great pleasure to you, and I sincerely congratulate you upon the good results you have obtained. Would that everyone in business could occupy his leisure hours by similar devotion to study—the world would be the happier and the wiser thereby. . . .

We now reach Harrison's notes of his visit to the Geological Society's rooms to hear Prestwich's paper read. It was the greatest day of his life, and his interest in the proceedings at Burlington House was intense, although his deafness prevented him from hearing either the paper, as it was read, or the subsequent discussion. The entry in his notebook begins with the words, 'London, 6 February, 1889', written in large hand.

N.—6. 2. 1889. To Burlington House. The meeting began at eight o'clock. The formal business of balloting, etc., occupied the first part of the proceedings, and then the Secretary read the paper. Unfortunately, as I was seated next the Professor, not one word could I catch. Professor Prestwich, with a large pointer in his hand, was seated near the diagrams, and as the various places were mentioned he indicated them with the pointer.

After the paper had been read, the Chairman made some observations, and then Dr. Evans addressed the meeting at some length, followed by Dr. Hicks and Messrs. Whitaker, Topley, and Allen Brown. Then I was called upon to say a few words, and literally I did

¹ Flint implements 'will yet be found in such deposits and at such elevations as will cause the hairs of cautious archaeologists to rise on end'—see page 91.

so, for I felt not only nervous but disappointed in having lost the whole of the subject-matter.

Amongst those whom I met I remember Messrs. Judd, Bonney, Woodward, Topley, Whitaker, Walker, Hicks, Rudler. Coffee and tea in the ante-room. Across the park with Allen Brown. Home ¹ at 11.30.

N.—7. 2. 1889. To the British Museum at 10.15. Mr. Franks kindly gave me specimens from the caves at Le Moustier. Inspected the Wrotham ware. Afterwards to the City Temple to hear Dr. Parker. Music very impressive, but the Doctor I did not care for : theatrical at times and not to my liking. To Jermyn Street : a long chat with Mr. Topley. On to *Niagara* and home by the five o'clock train.

Harrison's failure to hear what was said at the meeting of the Geological Society was in large measure redeemed by the accounts—both oral and written—which he received from his friends.

A. M. Bell to B. Harrison.

7. 2. 1889

Just a line to congratulate you on the success last evening and the importance of the results.

The Professor recognizes, by very lucid reasoning, three different stages in your flints : (1) those of the valley gravels ; (2) those not in connection with the present valleys ; (3) the Ash specimens, remnant of a very ancient denudation, and 'among the most ancient of the known works of man'.

This is surely a great and definite result, and likely to lead to future clearness of view in these researches ; and I think that you may well feel satisfied in having provided the material which has satisfied the Professor of the truth of these arguments, which confirm so very much your own views.

I enjoyed the evening much, as I think did everyone else. Reached Limpsfield at 2 a.m., after walking from Westerham in a pour of rain.

A. M. Bell to B. Harrison.

10. 2. 1889

I am glad I wrote ; it struck me that perhaps you had not heard well.

Of the other speeches, Dr. Evans would not allow that the Ash

¹ i.e. to the house of a friend in London.

specimens differed from the others, nor would he admit that any were pre-glacial.

Topley was more cautious, speaking of the immense lapse of time necessary for the hollowing of the valleys.

Dr. Hicks . . . accepted the Professor's views and told Dr. Evans he had not a leg to stand on.

Whitaker, in a very impressive speech, upheld Dr. Evans, and spoke of the difficulty of knowing what pre-glacial meant *anywhere*, but especially in the valley of the Thames. . . .

I pointed out the scratchings on some of the Ash specimens to Mr. Topley : he was very much taken by them, for I saw him pointing them out to others.

The communication of Harrison's discoveries to the Geological Society set a seal upon his work but did not lead him to conclude that his labours were ended. It brought him fame, new friends, visits from scientific societies and individuals, and a very great amount of correspondence ; and it showed him that the settlement of several questions on which opinion was divided depended on continued research. Most of the implements had been found on the surface—was it certain that they were as old as the gravels to which they had been related ? Were the scratches on some of the specimens produced by the action of ice, and were the implements themselves pre-glacial in date ?

Another question that called for further investigation was that of the age and character of the rude implements from the Plateau. Several of these implements were exhibited at the meeting of the Geological Society, but Prestwich in his paper made no attempt to claim for them a higher antiquity than that of the Plateau palaeoliths, with which they seemed to be associated. The evidence of the palaeoliths in relation to the drifts was in Prestwich's judgement sufficient to prove the existence of man in Kent in pre-glacial or inter-glacial times. Harrison, arguing from the primitive character of the rude implements and comparing them with the pot-hooks and hangers of hand-writing, thought they were still older than the oldest palaeolithic tools.

Prestwich quickly made suggestions for further field-work, suggestions to which Harrison was ever ready to respond.

J. Prestwich to B. Harrison.

21. 2. 1889

When the weather is fair and you have the opportunity I should like you to examine the gravel on the top of Swanscombe Hill. I have not been there for thirty years, when flint implements were not thought of.

N.—10. 3. 1889. Train to Shoreham, a chat with Professor Prestwich until 10.45, inspected maps and notebook on Swanscombe Hill, Telegraph Hill (285 feet, O.D.).

To Eynsford and thence to Bower Lane. Field ploughed very recently: found one strip untouched, result two implements, and flakes.

N.—17. 3. 1889. To Drain, Woodlands, Bower Lane (three flakes), Shoreham (Professor Prestwich at church), Lullingstone, Eynsford, Brands Hatch, Crooked Billet, Ash (three flakes), and home.

N.—27. 3. 1889. To Horse and Groom, and Plaxdale Green. Searched the southern slope spread¹—all white, but many pieces very old—on to the stained bed [at South Ash], many tabular pieces with apparently worked edges, one palaeolithic implement. Very cold, biting, north wind, everyone complaining, but it mattered not to me.

N.—21. 4. 1889. To Terry's Lodge, where we found a plover's nest with four eggs. Returned by the field south-east of Crowslands, where there is a good percentage of ochreous drift on the unwasted plain.

William Topley, who had prepared the Survey Memoir of the geology of the Weald, was alive to the significance of the discoveries in the Kent drifts, and, shortly after the communication to the Geological Society of Prestwich's paper, he arranged to lead an excursion of the Geologists' Association to the Ightham district, and also expressed his intention of coming himself to see and to map the gravels. His visit was paid in April, when he stayed in the neighbourhood of Ightham for three days, visiting and mapping the gravel-beds. Harrison spent the first two days with him, and provided him with a guide on the last day of his visit.

Harrison stated that it was the exhortations of Topley that led to his sinking pits on the Chalk Plateau, and to the discovery of rude implements in the gravels *in situ*. At the time when Prestwich's paper was read, and for two or three years after-

¹ i.e., it is thought, the slope to the south of Parsonage Farm ochreous drift.

wards, the objection was urged against the implements that nearly all of them had been found on the surface and consequently that they might be newer than the gravels on which they lay. Neither Prestwich nor Harrison felt this objection to be one of substance: they were abundantly satisfied that the implements turned up by the plough in such large numbers really belonged to the gravels. Topley also shared this view, and, regarding the immense antiquity of the Plateau gravels as established, he considered that the great age of the implements themselves would be proved beyond question, as soon as they were found *in situ*.

It was only the absence of open sections that delayed the finding of implements in the gravels. However, even before an opportunity for sinking pits arrived, Harrison found a few implements *in situ*. He watched the banks of hill-top ponds, and by this means, or by taking advantage of the digging of a well or the erection of a building, he was enabled to show that the Plateau implements were to be found in and not merely on the drifts.

The publication of Prestwich's paper in the *Quarterly Journal of the Geological Society* in May, 1889, enabled the facts and arguments adduced to be examined at leisure, and added greatly to the interest which it had excited in scientific circles. Amongst others, Worthington Smith welcomed the information which it contained, especially in its relation to his own finds near Dunstable.

Worthington G. Smith to B. Harrison.

1. 6. 1889

Professor Prestwich has kindly sent me a copy of his paper. . . . I am very glad to get such a lot of *data*, as you may suppose.

I have lately found three implements near here, on the hills, in red clay on chalk. One in gravel (so-called) at 759 feet above O.D., and 345 feet above the nearest brook, one and a quarter miles off—nothing to do with brook, and no water near for miles.

There is only a brief note in Harrison's book of the visit of the Geologists' Association to Ightham on 1 June, 1889, under the distinguished leadership of Prestwich and Topley. An

enthusiastic party of geologists came to see Harrison's finds and the gravels, and to do him honour. Prestwich wrote afterwards, 'I enjoyed the day much on Saturday and am none the worse for it', whilst Mrs. Prestwich added, 'My husband was all the better for the day . . . and it made him feel quite young again'.

B. Harrison to A. M. Bell.

16. 6. 1889

My collection is increasing : No. 506 has been sketched in to-day. Ash at present is unavailable, the best field is in clover, the hop garden covered with weeds, and the old stained bed, the 'remnant of a very ancient denudation', in strawberries, and so not yet to be visited.

I ran up on Sunday last and secured two implements, one a very good specimen, the other deep ochreous and bearing *striae*. The former I sent to Sir John Lubbock, as it was number one of my second half thousand ; and to him I owe a debt of gratitude for past kindly help with specimens as well as for the priceless boon of bank holidays.

The second specimen, though not so perfect, is still to me of greater interest, as I wish to get all the striated specimens I can. The Professor may allude to them in his next paper.

On 28 May I went to Bower Lane and searched for an hour. The land, having been steam-ploughed two days before, was in bad condition for search, so after getting some flakes, I made my way to the swallow-hole pond to wash them. Noting the peculiar, deep blackness of the earth round this shallow pond, I thought that it had been of greater extent, and ought to contain any implements left behind in the long, long ago. I searched round the margin of the pond and found a beauty. In stooping to secure this with my right hand, I picked up another with my left.

The beauty I sent to the Master, as 'a fish out of his own pond'.¹

At the end of July, 1889, an incident occurred which, whilst it amounted to a vindication of the views that Harrison advocated, left him with a feeling of sadness to which he often referred when relating the story.

On 30 July, an elderly stranger called on him who proved to be Nicholas Whitley of Penarth, an archaeologist who, like many others, was drawn to Ightham by the interest created by

¹ Bower Lane was near to Prestwich's house at Shoreham.

Harrison's discoveries. Harrison tried to take his visitor to the top of Oldbury Hill, in order to show him at a glance the position of the different implement-bearing drifts and their relation to the existing valleys, but his advanced age—eighty-two years—and the heat of the day caused the attempt to be abandoned. Harrison, however, showed him his collection of implements, and explained the geological significance of the positions in which they had been found. The visit was a brief one, as Mr. Whitley had to return the same evening to London.

Two days later, however, he called on Harrison again, telling him that in the interval between his visits he had been driven to Ash, Terry's Lodge, and other places on the Chalk Plateau where implements had been found. He wished to visit other localities in Harrison's company, and a carriage being available, he was taken to many of the gravel-beds of the Shode system and elsewhere.

Nothing of importance happened, but Harrison stated that Mr. Whitley was very earnest and anxious to know all about the implements and their geological positions. He asked numerous pertinent questions and took note of the answers he received.

After visiting the gravel at Fane Hill, he said, suddenly, 'Enough, I am satisfied', and expressed a wish to get back. Harrison had difficulty in persuading him to visit the drift on High Field, and stated that 'Mr. Whitley seemed a changed man: why I knew not'. He left, and Harrison wrote to Prestwich describing his visit: his great age, his earnestness and energy for a man of his years, and his equipment of maps and papers. Prestwich replied:

J. Prestwich to B. Harrison.

2. 8. 1889

I know Mr. Whitley. He has long been a sceptic about all finds except those which are neolithic. I hope you may have converted him. . . .

Ten days later a geologist called on Harrison and startled him by saying, 'You have had my old friend, Mr. Whitley, to see you, and you have nearly killed him'.

Harrison expressed his concern, saying that he feared that the

distance walked and the hill-climbing had been too much for so old a man, adding that Mr. Whitley had complained of the heat and of exhaustion, and had left very hurriedly at the last.

'No', was the answer, 'it was not that. The evidence you laid before him has completely changed the views of a life-time. He is an amiable man, president of a local natural history society, who has consistently refused to believe in the existence of palaeolithic man. When I saw him the other day he was greatly distressed, saying that his energies had been misdirected and his work in vain'.

Eight years afterwards Harrison learned by chance that after leaving him Mr. Whitley had lunched at a local hotel before returning home.

'Do you know that you settled him?' said the hotel keeper. 'He said to me, "That little grocer has ruled out all my life's work!" He was full of it. He was a good sort, and he made me have dinner with him, but you settled him'.

In August Prestwich suggested a new series of excursions :

J. Prestwich to B. Harrison.

7. 8. 1889

Next week I thought of going some day to the Swanscombe gravel-pits. . . . I have not been to these pits since flint implements have been found there. Other days I thought of going to Lenham and Bower Lane, if you are disposed to join. We could also visit any new site you may wish to show me.

The visit to Swanscombe took place three weeks later :

N.—30. 8. 1889. To Telegraph Hill, Darenth, and Swanscombe with Professor and Mrs. Prestwich. We went by rail to Gravesend, and there hired a conveyance. Proceeding by the water-side, up the High Street and along the London Road, we made our way through Northfleet to Greenhithe. At this last place we noted pipes in a chalk pit fully eighty feet deep. We drove from Greenhithe nearly to Dartford Brent, and back to Milton Street gravel-pit, where we found several flakes and secured one implement that had been found on the previous day. Next we drove through Bean to Telegraph Hill, where the Professor remarked, 'I can trace these gravels from Reading to Cobham (Long Wood), but not beyond Rochester'.

From Telegraph Hill we proceeded by way of Betsham, past

Wombwell Hall, to Rosherville. It was a treat to me to renew my acquaintance with the gardens, after an interval of a quarter of a century, and in Professor Prestwich's case the interval was twice that time, for he had not visited the gardens for fifty years. He observed, 'I used to come down here by steamer, fossil collecting', whilst Mrs. Prestwich added, 'I used to come from Scotland to school by sailing vessel. The passage was too often a rough one, and it was always a great joy to me to reach Gravesend, with its calm water. I admired the Kentish hills with the huge chalk pits, so different from Scottish scenery, and from the flat Essex shore on our right'.

A. M. Bell wrote to Harrison in a confident tone in September of this year with regard to the character of the rude implements.

A. M. Bell to B. Harrison.

18. 9. 1889

I am glad that you saw the veteran Professor, and that his verdict on these unbulbed scrapers coincides with our own. I have looked again and again at the edges of those which I selected, and with an increasing feeling that there is a human purpose dimly visible in the working.

There seems to be something more in the uniform though rude chipping than mere accidental attrition would have produced.

I have come to this conclusion with diffidence: first, because I had hitherto regarded the bulb or trace of artificial blow as a *sine qua non*; second, and more important, because I feel and have all along felt that the real enemy to such a story as ours is the too enthusiastic friend who *sees what is not there*; but having made my conclusion, I hold it with all firmness.

Until I see flints carefully and uniformly chipped all round their edges, and only in one direction of blow, by natural action, I shall believe that these are artificial.

N.—22. 10. 1889. From Rochester to Cobham, thence by way of Meopham and Wrotham Hill—by wish of Professor Prestwich in connexion with his paper on the Westleton beds.

B. Harrison to W. J. Lewis Abbott.

No date

My first find of an eolith at Wrotham Hill was made on 22 October, 1889. I wrote to Prestwich, saying it was certainly worn and possibly worked. He accepted it as being worked.

This find was made on the day when I went to Cobham and thence

to Wrotham Hill. I took the journey to Cobham by direction of Prestwich, to examine and report on the gravels by the mausoleum at 400 feet, O.D.

J. Prestwich to B Harrison.

5. 12. 1889

Should you call on Sunday, I should like to show you the five manuscript volumes of the late Dr. Mitchell. In them are a number of notes relating to the botany and geology of this district which I think you would like to see. They were made so long ago as 1835-1845. I am going to deposit them with the Geological Society, so you must come soon if you wish to see them. It will take you some hours to get through them.

Harrison not only saw the volumes, but he made in his notebook such copious extracts that it is evident that Prestwich allowed him to borrow them for a time before sending them to the Geological Society.

XIX

1890—AGED 52

ALTHOUGH the older palaeoliths from the Plateau were looked upon by Harrison as the gems of his collection, his chief interest now lay in the rude implements or eoliths. These implements had not been very fully discussed at the meeting of the Geological Society in February, 1889, for they were there somewhat overshadowed by the Ash palaeoliths, but as the former had not been universally accepted as the works of man, Harrison set himself, by further work on the Plateau, to place their character and antiquity beyond dispute, if such a course were possible. He not only continued to search the known drift beds, he also undertook a wider survey in order to find other indications of the courses of the rivers that brought down the rude implements in their gravels.

Early in 1890 he added West Yoke to the list of patches of implement-bearing gravel.

N.—II. 2. 1890. I set off [with a friend] with the purpose of examining a large patch of water-worn ochreous gravel near West Yoke farmhouse, north-west of Ash. We found the spread to be somewhat local, occurring on the west of Buzzards Field, on the summit of the ridge. The search was very successful. We returned home laden with rich spoil, consisting of many of the puzzling rude types, and one deeply stained palaeolithic tool (No. 534).

The success of this expedition caused him to revisit West Yoke with de Barri Crawshay, who was searching the Plateau drifts west of the Darent. The second visit also produced a deep brown palaeolith (No. 537), and Harrison stated, 'We also

noticed a sprinkling of ochreous flint to the west of the patch, a position which I called West, West Yoke'. From 'West West Yoke' many rude implements were obtained, but they were more lustrous in appearance than those from Ash and West Yoke—a difference that Harrison attributed to weathering.

J. Prestwich to B. Harrison.

12. 2. 1890

I am glad you have found another locality of the old drift. I expect that eventually you will be able to find patches of it all over the Red Clay Plateau, probably following certain lines to the escarpment.

Prestwich showed the West Yoke specimens, or some of them, including No. 537, to Dr. Evans, to whom Harrison also wrote on the subject. Evans, whilst welcoming the palaeolithic evidence, was very dubious about the rude implements.

J. Evans to B. Harrison.

4. 3. 1890

I am glad to receive your letter, but would recommend you not to build too much on the rude implements from Ash. I . . . had a hurried glance at the flints you had sent [to Prestwich]. One is undoubtedly an implement, very dark in colour, but at the others with chipping at the edge I . . . shook my head. My examination of them was extremely hurried, and, indeed, no examination at all, but it seemed to me hard to say that they had not been worked by man, and impossible to affirm that they had.

In the manufacture of pebbles by running water, it is the sharp edges that are first attacked, and natural chipping is often indistinguishable from artificial. If you get the finished specimens in the same beds, there is more probability of the chipped flints being the work of man, but then they are the less likely to be the first essays of his handiwork.

You had better 'keep on'.

The final sentence of this letter was a welcome, though unnecessary exhortation. It showed Harrison that, notwithstanding Evans's doubts, he retained an open mind respecting the rude implements.

Now came a find *in situ*, the beginning of an answer to the objection that the rude implements might be of any age because they had been found only on the surface.

N.—15. 3. 1890. To the Vigo, via Rigg's Lane, past Cold Harbour. There is a spread of ochreous flint at 697 feet, O.D., north of the road west of Plot House, some in the top corner of the field due east of Plot House, also in the Vigo garden, and in the bank of Sir S. Waterlow's land, as shown by the post holes made for a fence by the pond side. I obtained apparently worked pieces in the triangular strip between the roads, and one rude implement *in situ* in the bank.

On 4 August, 1890, Harrison commenced the excavations on the eastern face of Oldbury Hill which established the theory that the caves or shelters that crowned the hill were the dwelling-places of human beings in palaeolithic times. Forty-nine well-finished implements and 648 flakes were found in the ground excavated.

Several excursions with Prestwich, who was preparing a second paper for the Geological Society dealing with the drift stages of the Darent, took place in the early autumn.

N.—10. 9. 1890. I left home at 8.20, and was driven to Ash. After examining the spread of old gravel at North Ash, I went to that at West Yoke, where I found a considerable number of worked flints. Not wishing to over-load myself, I left several of them hidden by the shocks of wheat, at a marked spot in the field over which I had been searching. My brother-in-law, who lived at Ash, had told me that Mr. Fotheringham of Fawkham, a geologist, was interested in flint implements, and I took the opportunity to walk on to Fawkham to make his acquaintance. We chatted for ten minutes and I then left him, as I had promised to meet the Professor on the hill near the Rising Sun inn at Fawkham Green. When on the way to the meeting place I found a spread of ochreous gravel at Brands Hatch. I became so engrossed in this discovery that I forgot the time, until I saw Dr. Prestwich's carriage in the distance, being driven rapidly along towards the Rising Sun. Running as quickly as I could, I found him pacing impatiently up and down outside the inn. It was two minutes after the appointed hour of meeting.

We proceeded to West Yoke drift, and I unearthed my finds from beneath the wheat shocks, where I had placed them earlier in the day. Professor Prestwich was impressed by the great spread of worn gravel, and remarked that it was 'a capital exhibition of ochreous drift in an important position'. At his request I filled my satchel with the water-worn flints, which were scattered over the field in abundance. It was the dawn of the era of the eoliths, for on this day he pressed me to

take home specimens that only a few months earlier he would have regarded as too doubtful to be preserved. I also took a note of the percentage of the ochreous gravel to the miscellaneous fragments that were spread over the field, by drawing a circle with my stick and counting the number of pieces of each kind of stone lying within it.

We had tea in a snug little room at a neighbouring inn, and some biscuits were brought in which the Professor declared were like those he used to get in his geological rambles half a century earlier—'but', he added regretfully, 'I have not met with them for many, many years'.¹

We returned by way of Horton Wood, Reynolds' Place, and the road leading to Farningham. At the point where we joined the main road to London, he pointed out the section where he had first found chert in the Darent valley. Leaving him at the waterfall in Shoreham village, I made my way to the railway station and took the train home. It had been a day of exertion and intensely hot, but not close, and it was consequently a most enjoyable trip to both of us.

N.—17. 9. 1890. We took another excursion together, going this time to Halstead, Snag Lane, and Norstead. Starting from Darent Hulme, we drove by way of Timberden to Halstead, noting the pretty new church on the right of the road near Halstead Place. About a quarter of a mile further on, we left the carriage and searched a field for ochreous flint, which we found, although we did not discover any specimens bearing work. Mr. Crawshay was more successful at this spot, and found there several implements of the Ash type.

On the summit of the hill to the west of this field, we found Tertiary pebbles, and, following these to the northward, we picked up a large number, and one piece of chert, in a matrix of a clayey character. We went next past Stone House and Pratt's Bottom Gate to Snag Lane. We found the road here quite impassable for the carriage, so, sending it on to await us at Pratt's Bottom, we walked across the fields to Norstead, and thence to the inn at Pratt's Bottom. I found this inn to be one of the roomy, old-fashioned type, suitable for the considerable coaching traffic that passed along the road before the making of a new road stripped it of its importance.

The plain to the west of Norstead, above the 400 foot contour, was covered with Tertiary pebbles and flints, with some fragments of Tertiary ironstone containing flint pebbles embedded in it.

We returned to Shoreham in the evening and I went home thence by train.

¹ The biscuits were called Brighton biscuits.

'These walks', wrote Harrison afterwards, 'although full of interest and enjoyment, were not without their responsibilities. The veteran Professor was getting on in years, and I had strict instructions from Mrs. Prestwich not to let him over-tire himself, but, once the old hunter had started on the scent, he seemed young again, and glad to forget the restrictions which his wife, in her anxiety for his welfare, thought necessary. I was often surprised at the length of the walks which he insisted on taking'.

N.—9. 11. 1890. By train to Shoreham. Called on Professor Prestwich. On via Meenfold ridge to Shepherd's Barn Field, and across the field to the plain. On the field (in strawberries) just to the south of a corrugated shed, I found a spread of ochreous flint and chert and ragstone, with some worked flints. The plough had been used the previous week, hence the field was not in good condition. I crossed the field to the south-west, but found no more ochreous flint.

J. Prestwich to B. Harrison.

9. 11. 1890

It has been in my mind that when your collection of the Ash type is sufficiently large to be able with some certainty to group and discuss the specimens, something should be done to bring them before the Anthropological Society. . . . Either you could draw up a report which Dr. Evans or I could present, or a joint communication could be made. But first it is well to be sure of their geological relations. . . .

The paper I have just sent in to the Geological Society¹ deals further with the geological questions. It has always been my practice not to hurry any question, or to express a hasty opinion. This has, no doubt, led in many instances to my being forestalled, but it has landed me on safer ground. My first notes on this district and the Thames valley date forty to fifty years ago, but it is only within the last few years that I have ventured to record those relating to the drift beds and Quaternary beds, so complicated and difficult are the phenomena.

A subsidence on the Plateau called for examination in November :

N.—12. 11. 1890. Mr. Evelyn² wrote stating that his wagoner in passing across a field, saw his shaft horse sinking into a pit. He urged the horse on, and the wagon passed over safely, but the earth

¹ See page 159.

² At that time owner of Terry's Lodge Farm.

fell in immediately afterwards, and a hole seven or eight feet deep was left.

On visiting the locality, I found the hole to the north-east of Two Chimney House. The pit was about three feet in diameter at the top, expanding into a dome-shaped cavity at least ten feet broad at the base, and about ten feet deep.

N.—16. 11. 1890. With [a friend] to the Two Chimney House subsidence. We examined other hollows near it, and it seems that if the present hole were filled in, the configuration of the adjoining area would resemble that of the other hollows.¹ All these hollows may have been pipes in old drainage lines—swallow holes.

J. Evans to B. Harrison.

22. 11. 1890

I hear from Professor Prestwich of various new palaeolithic discoveries in which I am much interested. I tell him it will not do to place too much reliance on presumed types, inasmuch as in all extensive deposits the range in form and finish is extreme and wide.

N.—23. 11. 1890. To Hadlow : had a careful look at Dunks Green gravel, but could see no flints as at Ash, though ochreous flint is common.

The meaning of the preceding note is that at Dunks Green there were no flints with edges chipped like those of the rude Plateau implements. If the chipping on the rude implements was natural there was no apparent reason why such chipping should not be found on stones lying in almost any drift.

¹ The hollows mentioned are very shallow depressions of the surface.

XX

1891—AGED 53

GRANT ALLEN's writings on archaeological subjects led to the exchange of a good deal of correspondence with Harrison, at irregular intervals, over a long series of years. Early in 1891, Harrison sent to him an outline of a communication which Prestwich was about to make to the Geological Society concerning the history and drift stages of the Darent valley. This paper was complementary to the earlier paper dealing with the Ightham area, and the older palaeoliths and rude implements found by Harrison in the drifts on the Plateau again came prominently under notice.

Grant Allen to B. Harrison.

14. 1. 1891

What you tell me about your old flints is most interesting. Your work at these implements has been most important and valuable, and it must be a great pleasure to you to see how much notice they are exciting. . . . It is clear from what you say that you have pushed back man in Kent to a point when the existing earth-sculpture had hardly begun to be outlined, and that you have got as far back as one can go without getting into the Pliocene. . . . Your list of finds is really astounding. I should think you have done more work in your own district than any man living : and you put to shame those of us who go farther afield, and see nothing.

Prestwich's paper on the Darent was read at a meeting of the Geological Society held on 21 January, 1891.

N.—21. 1. 1891. To Burlington House at 7.14—got in, and proceeded to re-arrange some of the specimens.

Our veteran looked tired on first coming in, and was evidently not

so robust in London as when at home.¹ The enforced confinement, owing to his long detention indoors, had told upon him. However, he came up smiling when replying after the discussion on the paper, and it was a treat to see him expand. I fear the effort was too much for him, as he left shortly afterwards, feeling very tired.

A long chat after the meeting was over, among friends, Bensted, Crawshay and others.

N.—22. 1. 1891. To Jermyn Street, first calling at Stanford's and obtaining particulars of maps of Lenham district. Had half an hour's chat with Mr. Topley, a peep at the Wealden map, and a careful scrutiny of the Wealden model. I noted that the Ash bed of Thanet Sand [as shown on the model] is misleading, being placed apparently in a valley : must write about this.

Ice on the Thames—the river was nearly covered over, and huge floes were piled up.

N.—1. 2. 1891. By train to Eynsford. Walked across the viaduct to the old drift bed. Nearly all freshly ploughed, but I found one old old, one on the lower terrace east of Eynsford, and one on the summit of the path across the tongue between the main and Maplescombe valleys. To Brands Hatch, Kingsdown, and home.

Immediately after the reading of the paper on the Darent valley, Prestwich returned to the project of bringing the rude implements before the Anthropological Institute, and he outlined in letters the course to be followed.

J. Prestwich to B. Harrison.

5. 2. 1891

Now that the geological question is settled, it may be well to see what specimens of the Plateau implements can be laid before the Anthropological Society. You would take those from Ash, West Yoke, and Bower Lane, and Mr. Crawshay those from Halstead, Tatsfield, etc. They should be grouped and the most typical ones selected for illustration and slightly sketched. . . . You would also draw up any report upon shape, object, workmanship, etc.

J. Prestwich to B. Harrison.

13. 2. 1891

Your two catalogues are sent to-day per parcel post.

We can now make arrangements for bringing the subject before the Anthropological Institute. It will be best, I think, for me to give

¹ Prestwich was spending the winter in London.

some general account of your finds and of the geological considerations. This could, if you like, be followed by a report by you on the specimens, condition, workmanship, probable uses, etc. . . .

You could at once begin to group and arrange specimens.

N.—10. 2. 1891. Mr. William Topley at the reading of the Darent paper said that he wished to know if there was any clear case of the flints being found in place. He added that the antiquity of the gravels at such an elevation [on the Plateau] was beyond question and certainly preceded the excavation of the great Chalk valleys and the present features of the Weald.

In consequence of these remarks I went to the Vigo inn, and searched in and near the post holes dug for a fence. I found worked stones and thus recorded my first finds *in situ*.¹

I returned home via Wrotham Hill patch, finding a lot of worked stones and one fragment of a palaeolith. At 400 feet, O.D., just north-east of New House Farm, I found a massive ochreous flake, with *old work*, very fine.

Plot House patch was in clover.

A. R. Wallace to B. Harrison. Parkstone, Dorset, 15. 2. 1891

I see in *Nature* this week an abstract of Professor Prestwich's paper on the Darent, and I am much interested to see that he imputes much of the gravel and denudation of Kent to glacial action.

It has always seemed to me that the high-level gravels like those here spread over miles of level plateau, with no high land near, and with little signs of the sorting of heavy and light material by water, could not possibly have been deposited by rivers, and therefore necessitate the action of ice.

When Professor Prestwich's paper is printed, you will, no doubt, have a separate copy and I shall be glad if you will lend it to me, as I am not a Fellow of the Geological Society and do not see their publications.

J. Evans to B. Harrison.

24. 3. 1891

At Amiens, as elsewhere, a large proportion of rude implements are found associated with well-finished examples. Any chronological deductions based merely on the character of the implements found up to the present time at a certain spot, must, I think, be received with great caution.

¹ There had, in fact, been an earlier find of worked stones *in situ*—see page 155.

Harrison experienced some difficulty in shaping his notes on the rude implements (which were to accompany Prestwich's paper for the Anthropological Institute) in a manner satisfactory to his leader. Prestwich was deliberate, Harrison was impulsive. He wrote a draft, copied it, and posted it to Prestwich for his consideration. Before the latter replied, Harrison came to the conclusion that he could improve on his first effort. He sent Prestwich a revised version, embodying his second thoughts, and this happened more than once. In the circumstances it is not surprising to find Prestwich indicating a preference for an 'approved version' and no other.

J. Prestwich to B. Harrison.

7. 4. 1891

Your notes are both too long and too short. They would do very well for a lecture but not for a scientific society. You should say more about the ground where found, and specify that ground, and do not go beyond it. . . .

It would be better that we should first agree as to groups. . . .

It has been strongly objected that the rudeness of the specimens is no sure indication of age, because similar rude specimens may exist at Amiens, Salisbury, and the Thames valley, if they had been sought for, but that only finished specimens were sought for. When time and leisure permit, it would be well, therefore, to go to Milton Street, for you to see whether rude forms are to be found there in association with the better ones. I have answered the objection in part, but a search by you would strengthen the case.

In writing the notes over again, please send me your approved version and not four versions as you have now done, as I can give more attention to one than to four. . . .

I am sorry to give you all this trouble, but it is essential to give the salient points and no others. . . .

I like your sketches.

J. Prestwich to B. Harrison.

25. 4. 1891

Your notes will do better now. I should, however, leave out, as you query, the episode about your black eye.¹ It is an anecdote for the dinner table. . . .

You should give your grouping of the implements and add also

¹ The 'black eye' episode is the incident described on page 126. It was however, not Harrison, but his brother-in-law whose eye was blackened.

what I wrote you about before at length, about Milton Street and Aylesford. This is important.

The objection to the age of the rude implements raised in Evans's letter of 24 March, 1891, and referred to in Prestwich's letters of 7 April and 25 April, led Harrison to search the gravel at Hadlow in order to ascertain whether the rude types were to be found there in association 'with well-finished examples'. Milton Street and Aylesford, which Prestwich had asked him to visit for the same purpose, lay at a considerable distance, and Harrison had no immediate opportunity of examining them. In reply to his report on his visit to Hadlow, Prestwich wrote : 'Hadlow is not important, as no true valley implements have yet been found there. High Field and Dunks Green would do better'. Accordingly, Harrison searched High Field and neighbouring drifts :

N.—3. 5. 1891. I devoted the day to a careful inspection of Bay Shaw, High Field, Butt Field, Coney Field, Fane Hill and Patch Grove North, but found not one particle of evidence of rude implements.

The publication of Prestwich's paper on the Darent valley led to the following exchange of correspondence :

A. M. Bell to B. Harrison.

24. 5. 1891

I have now re-read the Professor's paper, and more slowly, verifying every reference. What a flood of light it throws on our area. It does seem much clearer in many ways.

He does not, as far as I can see, make any distinction in age between the ordinary palaeoliths, i.e. definitely *shaped* flints of the Ash Plateau, and the old olds, or *chipped* flints of natural shape.

I have written to him, asking if he thinks it possible to do so.

I have understood you to do so, and have certainly done so myself.

The geological evidence must be scanty, as if the whole previous surface had suffered from glacial influences, the surface and drift would be much trailed together. Yet I have thought that there was evidence that the South Ash and West Yoke, etc., drifts were older than the Ash-palaeolith drifts at the same level.

I understood him to place both as anterior to *all* glaciation action in the district.

I did not quite so apprehend him in his previous paper. Although—as you know—I think that man probably came into being in much earlier (Miocene) times, I had hardly thought that we were on the track of man of the Forest bed age, i.e. British land surfaces previous to *all* glacial extravagances.

In his reply to this letter, Harrison expressed his own opinion that the rude implements were older than the oldest palaeoliths.

B. Harrison to A. M. Bell.

25. 5. 1891

When first I began to collect implements in considerable numbers, Dr. Evans wrote to Worthington Smith urging him to accept nothing not bearing a bulb. After a time I plainly saw that we must and ought to go a step further, and to accept some naturally shaped stones as having been operated upon by man, and so as bearing work.

These rude specimens I looked upon as the first of man's tools. Presently, some genius discovered that better tools might be made by working on the core of a flint.

I have sometimes thought that in the earliest stone age every man was his own tool-maker, and later on skilled workmen made tools for the community.

The hill-top area north of Ightham, I considered, would show the beginning, especially if the long-since-denuded southward extension of the Chalk were admitted, and all Plateau palaeoliths and rude implements were pre-glacial, but between the rude and the better finished tools the interval might not have been of long duration. I venture to think that the rude implements are the 'old olds'.

On my writing to Prestwich claiming the highest antiquity for the rude implements he replied, 'The Ash [rude] specimens are also palaeolithic, *but the first of the series.* . . .'

For Miocene man we must look further afield, but if, during Miocene times ours was an area of denudation and not of deposition, may not the drifts on the crest of the escarpment, representing the waste from the old plain, long since denuded, be equally old?

J. Prestwich to A. M. Bell.

27. 5. 1891

The only difference between the Ash and Bower Lane positions is that the latter contains a larger proportion of well-finished specimens. There are, however, plenty of rude types there [Bower Lane], and there is no distinction in geological position and no evidence of two stages of drift. I have, however, equally with you, felt the difficulty of referring such differently-fashioned implements to the same

race of men, and in the paper I have ready for the Anthropological Institute, I go into that question at greater length. . . . After all, however, what I have to say is very conjectural, and I do not attach much weight to it. So far as at present known, form and shape alone are not sufficient.

To establish the age of any drifts (and their implements) geological evidence is paramount. The other may be corroborative. Though I believe the valleys to have been started by glacial action, I know of no sections showing ice to have extended over the Plateau.

The third of the series of papers written by Prestwich with reference to Harrison's discoveries was read at the Anthropological Institute on 23 June, 1891. Harrison and Crawshay contributed notes on their finds to the east and the west of the Darent respectively, and a goodly array of rude implements was exhibited.

N.—22. 6. 1891. To the Anthropological Institute, Hanover Square. Cases not arrived, so I had to wait until four o'clock before my specimens could be laid out.

N.—23. 6. 1891. By train to London. Reached Hanover Square at eleven. Arranged all my specimens by 3.30, when Mr. Crawshay arrived. I helped him unpack and arrange his, and we then walked through St. James's Park to the National Rose Show. To dine at the Piccadilly restaurant : a grand affair, seven or eight courses, finishing with a liqueur.

The meeting was fairly crowded : General Pitt Rivers, Evans, Boyd Dawkins, E. B. Tylor (President), Prestwich, Spurrell, Vignolles. Dr. Evans partially opposed, Boyd Dawkins totally so. Allen Brown was in favour, and also Pitt Rivers.

The Professor replied to the discussion with great confidence, as I understood him to say, 'I am prepared to stand or fall by everything brought forward to-day'.

B. Harrison to W. M. Newton.

3. 6. 1908

At the meeting of the Anthropological Institute in 1891, Dr. Evans closed his observations with the following sentence, 'Before we accept these' [the rude implements]—looking at Prestwich—'we must think twice,'—looking at me—'we must think thrice, and'—looking round the whole meeting—'we must think again'.

Thus was the issue joined in a scientific controversy that

was to continue, with swaying fortune as new evidence came to light, for many years.

At this point it is convenient to recapitulate the contents of Prestwich's three communications to the learned societies. The first paper opened up the subject of Harrison's discoveries by describing the palaeolithic implements found around Ightham in the post-glacial valley gravels, in the glacial high-level gravels, and in the very ancient, pre-glacial gravels of the high Chalk Plateau. Specimens of the rude Plateau implements were exhibited alongside the Plateau palaeoliths, and Prestwich asserted that among the more obscure forms collected were 'some that seemed to belong to the earliest implements fashioned by man in England'.

The second paper, on the drift stages of the Darent valley, added to the evidence contained in the Ightham paper, but dealt with the area under Prestwich's own eyes—for his house, Darent Hulme, stood on a beautiful ridge on the western side of the Darent at Shoreham. In both these papers he entered fully into the geological evidence that he regarded as paramount in determining the age of the implements.

The third paper was directed to the character of the rude implements, the nature of the chipping upon their edges, the classification of the specimens in groups representing different kinds of tools, and the other reasons that existed for attributing them to the hand of man. These questions were submitted to the anthropologists, as the matters contained in the first two papers had been considered appropriate for the geologists.

The questions raised by the implements having been fully explained, the interest that they excited grew rapidly, and the increasing numbers of students and workers brought Harrison at first a flood and afterwards a steady flow of visitors and correspondence, which continued in greater or less volume as long as he lived and worked.

N.—15. 7. 1891. Prestwich, Rupert Jones, Wiltshire and Osmond Fisher came to Oldbury, where I met them. We examined the section at the rock shelters, and viewed the surroundings from the top of Gibbet Field. To Sandy Lane to see the section of Folkestone beds,

afterwards Professors Prestwich and Rupert Jones and I went to see the trench.¹ They insisted on descending the steep scarp, and we walked to Crown Point where we had tea.

A. M. Bell to B. Harrison.

28. 8. 1891

We lunched with the Professor one day. . . .

The Professor was very keen about the old olds, but will not allow that they are older than the Ash palaeoliths, one and all. He will not allow staining as any evidence : solely geological position.

A fissure in the Hythe beds at Basted, near Ightham, has become so well known and important owing to the immense numbers of remains of Pleistocene vertebrates and invertebrates found within it, and the light they throw upon the geological history of the district, that a record of the original discovery of bones at this spot is of interest.²

In September, 1891, a quarry had been recently opened in the Hythe beds in order to obtain ragstone—a hard rock suitable for building purposes and for road making, which, with alternating layers of a softer ‘hassock’, makes up these beds. In 1920 Harrison wrote a letter recalling the opening of the quarry.

B. Harrison to W. J. Lewis Abbott.

22. 5. 1920

The first visit to the fissure remains in my memory as clearly as can be after twenty-eight years.

In September, 1891, I was following the stream down the valley towards Basted when I sighted for the first time the initial work at Pink’s quarry, on what was then a promontory. I made my way up the slope to the workmen. I paid some attention to the strata, and, on seeing the fissure, begged the men to look out for bones. They replied, ‘We find lots of fossils in the rock’. I answered, ‘I do not want fossils from the Rag, but by careful search you may light on some bones’.

In November, 1891, a jaw-bone was found. This I sent to the Natural History Museum at South Kensington, where it was determined as that of an extinct badger. In January, 1892, I had a long

¹ The ancient fortifications on the western side of Oldbury Hill.

² See *Ightham: the Story of a Kentish Village*, Appendix I : ‘The Ossiferous Fissures of the Valley of the Shode’. By W. J. Lewis Abbott, F.G.S., F.A.I. See also *The Vertebrate Fauna from the Ightham Fissure*. By E. T. Newton, F.R.S., F.G.S. *Quart. Journ. Geol. Soc.* 1894, vol. 50, p. 188.

illness, and it was not until April that I learned that more bones had been found.

On the first day that I was well enough for a walk, my wife said, 'Where shall we go for a walk this evening?' 'To Borough Green'. 'You are not strong enough for so long a walk'. However, I insisted on going, made my way to Pink's house, found he was busily engaged elsewhere, sent him a message which brought him to me, and persuaded him to fetch the bones.

I identified a tooth as *rhinoceros tichorhinus*, but a bone puzzled me, and on the following Sunday I went over to Shoreham with it. Prestwich was delighted, and identified it as the astralagus of *elephas primigenius*.

Then you came, and after examining my collection, you said, 'Plateau man is a reality'.

On your next visit you said, 'I observed a fissure in the rocks when on my way here, along Basted Lane, but a mill-pond barred the way, and I could not get to it'. I remarked, 'I have bones from it'.

You determined the bones as *elephas*, like Prestwich, and on your return from your first visit to the scene, in May or June, 1892, you asked whether you might take it in hand to work it out.

I replied, 'I have a giant's task to establish my eoliths, so most willingly agree'.

The rest you know, and so does the world. But for your work the Natural History Museum would not have the all-absorbing collection.

B. Harrison to A. M. Bell.

[Late Autumn] 1891

I was at Shoreham on Tuesday.

Mrs. Prestwich said, 'I am so glad you have come over. Mr. Prestwich has been long desiring to see you. As he has been so ill, the doctor says he must be treated like a greenhouse plant. To-day the weather is nice for you, walking, but it is too biting for him, and he gets impatient waiting so long indoors. Now you can have a long chat. I am afraid you find him an exacting taskmaster. I do—frequently he stops me with the question, "Where are your facts?" and I am beaten!'

I completed my sketch-book last week and have now numbered 650 old olds.

B. Harrison to A. M. Bell.

27. 10. 1891

I keep acquiring old olds, and since you were here I have formed new groups. The stones of one group are shaped very like a human foot, with traces of work where the toe nails would be. I felt certain

this chipping was artificial, but whether done to intensify the resemblance to a foot or not, I could not say. The group numbers about sixteen implements, and merges into a larger group—some for left and others for right-hand use. These I call broad crook point tools.

N.—29. 10. 1891. To Trosley; visited the church. . . . I left the church unwillingly, but noting ochreous gravel near, soon began to search, and found a fine old type [of implement], a green coat. Nodules of coarse-grained iron sandstone are scattered about the lower part of the field, just north-west of the church. The scattering of ochreous flint I traced principally along to the crest of the ridge to the west, but only white angular flint was observed.

On Wrotham Hill patch I found several rude implements and one broad crook point tool. Noted the Devil's Kitchen combe—more striking than when seen before.

In November, 1891, Harrison received a visitor whom he was gratified to welcome to his house, perhaps beyond most men. This visitor was Alfred Russel Wallace, the naturalist, and co-discoverer with Charles Darwin of the principle of natural selection.

N.—2. 11. 1891.¹ Dr. A. R. Wallace, accompanied by Mr. Swinton of Sevenoaks, dropped in unexpectedly at 10.30. I had previously purchased Dr. Wallace's *Travels on the Amazon*, and from his portrait, which forms the frontispiece to this work, I recognized him before he entered my shop. I therefore greeted him with 'Dr. Wallace, I presume', a recognition which puzzled him until I explained that I had many times studied his portrait. This evidently pleased him.

A long and patient examination was made of the old types of implement, and of some later palaeoliths. We afterwards walked to the Oldbury rock shelters, Middle Wood rocks, and onwards by the fosse to Crown Point inn, gathering on our way *corydalis claviculata*, a plant new to him, which he carefully lifted. He was very interested in the weathered appearance of the rock at the shelters, especially the hard rims left round the pitted facets.

Dr. Wallace is a fine man, with a full, flowing beard, perfectly white, but he is very vigorous and elastic in step. In the course of

¹ Two accounts of Dr. Wallace's visit exist, one a contemporary note, and the other an amplification made at a later date. In the following record both accounts have been made use of.

the uninterrupted flow of conversation which marked the whole of his visit, we touched upon almost every topic of common interest. He is a diligent plant collector, and on my naming *salvia pratensis* he remarked, 'I found it at Cobham many years since'.

It was interesting to hear his pertinent suggestions as to the probable uses of the various implements. He accepted the *striae*, but did not agree that the numerous small scratches on the rude choppers had been caused by knocking about in the drift streams. 'Ice, and ice alone', he said, 'could produce such marks'.

He referred to the plateau of gravel capping the plain of Hampshire, in certain places fifteen to twenty feet thick, with large rocks and stones in all positions and a total absence of sorting—pointing to glacial action. When he saw the Shode valley with its stream of Oldbury stone, and the spreading out of the debris on the plain at Hadlow, he said, 'You must have ice to do this, and to transport these blocks. A rush of water would not do it'.

When I was showing him my rude implements and placing them in groups, he asked, 'Was it not a pleasure to you to find such agreement in form and work when first you became certain of them?' I answered that it was a supreme time.

Mr. Worthington Smith's name being mentioned, Dr. Wallace told me of a workman's remark about his stone-loving proclivities. 'You see that man there, Bill? Well, if you give him a cartload of stones, he'll sit there and amuse himself all the arfternoon, and very likely stand treat as well'.

Our conversation turned to the subject of the new and startling finds of implements in the auriferous gravels of North America, startling in the fact that although their positions indicated a high antiquity, yet their forms were similar to those of implements in use by the Indians at the time of the discovery of the continent in the fifteenth century.

When passing up the long drive at Oldbury Camp, we came all at once upon an exquisitely beautiful woodland scene in all the glories of autumnal colours. We stopped instinctively to admire the display, and Dr. Wallace observed, 'What a pity to be denied the privilege of frequenting such a spot as this. I see by the notice board that people are warned off: I hope you have permission to walk through'.

'I am glad to say that I have,' I replied. 'Indeed, did I possess all the land I am allowed to roam over, I should be one of the largest landowners in the county'.

'You are fortunate in being so favoured', answered Dr. Wallace. 'I am not myself in such an enviable position. Only a short time ago

I applied to the owner of a large estate for permission to visit a certain wood, in order to look for a rare plant, but my application was refused on the plea that the pheasants might be disturbed'.

Here a reference to the beautiful example of a dip slope to be seen in the Greensand ridge of Oldbury, in the line of our walk, caused us to turn to geology, and pheasants were forgotten.

On the day after his visit to Ightham, Dr. Wallace wrote as follows :

A. R. Wallace to B. Harrison.

3. 11. 1891

I was very greatly interested in your collection of the *oldest* palaeoliths.

Could you not write a popular article giving an account of your discovery of them, with all the main features of their form and peculiarities, and the special areas in which they are found, illustrated by outline sketches of all the chief types of form, and laying particular stress on the fact that each of these *types*, however made, is illustrated by numbers of specimens showing how natural flint pebbles of suitable form have been selected, and by being chipped on one side only have been brought to the required shape and edge.

If you could write as you speak, I think such a paper would be published by one of the good reviews.

Harrison did not write the suggested article, but many years afterwards—in 1904—he published a pamphlet on the rude implements.

His answer to Wallace may be inferred from the following letter :

Henry Walker to B. Harrison.

8. 11. 1891

I am very glad to hear . . . that Mr. Wallace has been to see you. . . . His suggestions to you showed his high appreciation of your work, and your reply was a wise one—you have found the materials and the geographical data, let Mr. Prestwich work them out.

It was perhaps Wallace's letter that caused Harrison to prepare an index of the contents of his notebooks about this date, in order that the records of particular events might be readily accessible.

B. Harrison to E. Harrison.

15. 11. 1891

Thank goodness, we have no company to-day, so I shall settle down presently to my own work.

I am indexing all my old notebooks and diaries from 1863 onwards, and can thus readily hunt up at short notice any excursion, note, or extract fitting an argument, instead of wading through a mass of manuscript.

Such a fine ochreous palaeolith from Fane Hill last evening—a great acquisition.

N.—8. 11. 1891. [With a friend] to Buley and Stangate quarry. In the afternoon drove to Fawke Common. We dismissed the trap at the old lane, and walked past Lone Barn to the Mote. A most enjoyable walk, the autumn tints in November's prime: that is to say, although many trees had passed the meridian of splendour, the golden beeches, the tasselled larches, and the birches were just at their best, and we fairly revelled in fresh scenes and new beauties. Each rod traversed was a series of new delights.

N.—17. 11. 1891. Dunstall height patch lighted on. There was a nasty, drizzling rain: tantalizing, as the barometer was rising, and I yearned for an outing in fine conditions.

Walked to Kemsing, and finding there was likely to be a fine interval, I went on to Wick Farm. Found several old types south of the house at 697 feet, O.D. On to Romney Street, where I left my overcoat with the miller¹ and trudged on to Bower Lane.

B. Harrison to E. Harrison.

7. 12. 1891

I begin this letter at 3 a.m., as my brain is too active to permit me to sleep.

[Two friends] came yesterday. We visited the Shode gravels, and viewed the configuration until 1.30, then came home to a goose. After dinner we drove to St. Clere Hill, Exedown, and home via Wrotham. We afterwards went to the rock shelters. Tea, and a look at the museum, and they returned home at seven.

The events of the day set me thinking, and sleep was not to be won.

Willie² is to sketch the plates for the Professor's paper.

After the meeting at the Anthropological Institute in June, forty implements were left for photographs to be taken, but last week the

¹ Who undertook to bring it back when on his next journey to Ightham.

² Mr. W. S. Tomkin, Harrison's nephew, an artist and draughtsman by profession.

Secretary wrote to the Professor, saying that owing to lack of funds photographs would not do. This led the Professor to write to me, and I suggested that Willie should execute the drawings. Telegrams, letters and visits followed, and now all is satisfactorily arranged.

It is necessary that the illustrations should be well done. Poor old Boucher de Perthes was scoffed at from 1847 till 1859, simply owing to the vile plates in his first published book. If only his discoveries had been appreciated earlier, what a stimulus would have been given.

N.—27. 12. 1891. To the Plateau. Had a glass of ale at the Horse and Groom, and, as usual, a joke with Heasman, the innkeeper, about the parish road and the time.

The Horse and Groom inn is well over three miles from Ightham by the highway, but slightly under that distance by an ancient track. The innkeeper always made a point of asserting that Sunday morning callers from Ightham were not entitled to the privileges of 'travellers'. Harrison replied that the old track was almost disused, and that as the parish authorities failed to repair it, the three-mile limit could not properly be measured along it.

He often called at this inn when on his way home after a lengthy walk over the Plateau. He would time his arrival for 12.30—opening time—to enable him to obtain a glass of ale and yet to reach home shortly after one o'clock—his usual dinner hour. On one occasion, on reaching the inn, he requested the innkeeper to open the door as it was 12.30.

'No', was the answer he received, 'tain't time to open yet'.

'Oh yes', Harrison rejoined, 'it is 12.30 by railway time'.

'Railway time', was the scornful reply, 'we don't go by no railway time up here. We go by old Norton's windmill'.¹

¹ The Horse and Groom inn, before the days of motor cars, was not very accessible, and dwellers on the Plateau had little intercourse with the more populated area below, where ran the railway. 'Old Norton's windmill' is at Kingsdown.

XXI

1892—AGED 54

IN January, 1892, Harrison had the only serious illness of his life, a severe cold developing into pneumonia and causing for a short time great anxiety to his wife and family. His recovery was steady and continuous, but for a considerable time he found it advisable to take precautions against exposure, and his outdoor activities had to be curtailed in a manner unusual for him.

B. Harrison to E. Harrison.

21. 2. 1892

I am getting on nicely—to-day especially, for I was able to take a short walk before breakfast, another from ten till eleven, and a third later to Oldbury Place, permission having been given me to wander about in the grounds. It was so nice to smell the pine-wood scent again.

Twenty-one degrees of frost, as experienced on Tuesday last, did not fit. Every tiny crevice produced a rapier-like draught. At Loughborough, thirty degrees of frost were registered, the point touched here in December, 1890.

Being unable to sleep one night this week, I took up Bell's¹ *Caesar* and found it most interesting. Then I routed out my old English edition, and with the aid of the classical dictionary I am getting up Gallic history. Bell's introduction is very clearly written.

The description of the rude Plateau implements read by Prestwich at the Anthropological Institute in June, 1891, was published in 1892, and its publication brought Harrison a good many letters, including a renewal of correspondence with Professor James Geikie.

¹ A. M. Bell, often mentioned in these pages.

James Geikie to B. Harrison.

14. 3. 1892

I was delighted to receive a copy of Mr. Prestwich's paper a few days ago, and to read his account of your very successful investigations. It is a strange tale which these implements tell, and you may be congratulated on the successful result of your long and laborious, but, no doubt, very interesting quest.

Yes, palaeolithic man is *old*. The world has seen many changes since he chewed the cud of sweet and bitter fancies. I have always hoped to visit your hunting ground, but the cares and troubles of college work, and the strong attractions of foreign wandering have prevented me.

I am at present preparing a work the object of which is to show the results of glacial and archaeological researches into the antiquity of man which have been obtained up to the present time. The more one investigates that question, the further into the past does palaeolithic man seem to recede.

The concluding sentence of Professor Geikie's letter was entirely in accord with Harrison's own views. Worthington Smith, however, whilst appreciating the value of the ordinary Plateau palaeoliths as evidence of the great antiquity of man, found the rude implements a stumbling-block.

Worthington G. Smith to B. Harrison.

26. 3. 1892

It appears to me that the importance of your discovery of implements rests on your lighting on *genuine undoubted* examples on the high levels. I don't attach much importance myself to the dubious and disputed forms, because such forms occur with genuine implements in all palaeolithic gravels. The very rudest forms can never mean anything, unless such forms are exclusive, and pertain only to certain deposits. As far as I can see by your plates, the disputed forms occur here with genuine implements. If of human make, I take them to be abortions of various degrees. I cannot classify them into types. Some abortions must of necessity be more or less like other abortions. I should like to see some of the disputed stones some day.

As for the undisputed forms, it is of course a clear case, and the disputed ones, as far as I can judge, do not influence the case one way or the other. I must say that some of your figures remind me strongly of stones we get here which I look upon as natural stones.

Worthington G. Smith to B. Harrison.

12. 4. 1892

The stumbling-block is this.

You find assumed tools without bulbs and attribute them to the earliest times, but with your dubious tools you get others of good quality. It is therefore reasonable to suppose that the bulbless tools belong to the good quality times.

If your plateau produced nothing but bulbless blocks, then [one] might take them as the product of a race to whom the bulb was unknown.

You say your rude blocks belong to the pre-bulbous days. How can that be? If chipped at all each chip must have had a bulb, and further search, no doubt, would produce them.

As I take it, your chief discovery is the finding of the genuine tools on the Chalk Plateau. The rude blocks, whether artificial or not, cannot be up to anything, because similar dubious forms occur in all palaeolithic gravels, of whatever age and position.

It is very well to quote Wallace and others, but you yourself know more about stone implements than they. I esteem your own opinion most.

I suppose all the tools you get on the high levels have been drifted a little. Do you know whence they come? Cannot you spot the locality where they were made and get the flakes and replace them on the tools [on] the site of the original manufactory?

In the preceding letters Worthington Smith set out plainly the difficulties that appeared to him, and to others who shared his views, to stand in the way of the acceptance of the rude implements as the earliest known works of man in this country. At that date Harrison was influenced principally by their rude character, and he thought it likely that they were, for that reason, the tools of a race older than palaeolithic man. Subsequently, when excavations had been made in the drifts, he found confirmation of his views in the fact that whilst certain drifts produced occasional palaeoliths in apparent association with the rude implements, there was also on Parsonage Farm and elsewhere, an older drift or 'buried channel' which, in his experience, contained rude implements alone.

The interest of the following letter is not wholly antiquarian in character :

B. Harrison to E. Harrison.

26. 3. 1892

A good find was made yesterday near Rose Wood. In digging gravel the workmen came to several places where the earth had been disturbed, and in every instance broken potsherds and flint flakes were found. Some pieces show the fluted, moulded rim very well. As the fragments show some five or six different pieces of ware, it will be seen that the spot was sacred.¹ I obtained a good neolithic celt from one hole about two months since : the workman states he found lots of broken vessels, but took no heed of them.

These interments lie immediately round a very large hole : it evidently belonged to the Rose Wood series, but was an outpost giving a look-out over the Weald, which Rose Wood did not.

*I have had this big hole in my eye for more than twenty years, and now it bears fruit.*²

Sir John (formerly Dr. John) Evans to B. Harrison. 4. 4. 1892

I shall like some day to see your series of flints from the borderland of nature and art. . . . I am afraid that Prof. Prestwich and you think me slow in accepting the true faith.

Harrison undoubtedly thought Sir John Evans over cautious. In this connexion the following anecdote is not without interest :

B. Harrison to C. H. Read.

24. 3. 1905

I was for seventeen years in close touch with Sir Joseph Prestwich, and he was cautious. In 1881, as Dr. Evans and I were walking together, I took from my pocket an imperfect implement, and asked his opinion. He at once accepted it, and on my telling him that Professor Prestwich would not risk an opinion, as it was too fragmentary, he said, 'Ah, Prestwich is too cautious'.

Many years later, on my showing Prestwich a very persuasive eolith, he accepted it, and was very pleased to see it. On my mentioning that Sir John Evans would not accept it, he said, 'Sir John Evans is too cautious'.

On 16 June, 1892, when searching on the ochreous drift at Dunstall Farm, above Shoreham, Harrison found a broken palaeolith much worn by the action of water, an indication that it had travelled far since it was made. Prestwich's home could

¹ i.e. a place of interment.

² The italics are not in the original letter.

be seen from Dunstall, and so significant a find had to be shown to him at once.

N.—16. 6. 1892. . . . I hurried forward to the Professor, who was equally interested with myself. We chatted and walked round the garden, looking at a number of choice varieties of shrubs and plants, and after lunch I returned home, again by way of Dunstall Farm, where I searched and found rude types [implements]. Walked on via Romney Street; the masses of bird's-foot trefoil and the intensely blue *polygala* were a sight to be remembered.

The rude implements were the subject of papers read by A. M. Bell at the meeting of the British Association at Edinburgh in August, 1892. Harrison sent a representative series of specimens for exhibition, and was well content to leave their advocacy to his friend. Bell's address concluded with a passage which Harrison copied into his notebook, no doubt because the final words appealed especially to him.

. . . Another fine collection has been found by Mr. Crawshay of Sevenoaks, of which I will relate but one anecdote. He was showing it, a few weeks ago, to Professor Darwin, of Cambridge, who, after looking at it for some time, exclaimed, 'Oh that my father had been alive : how he would have entered into this'.

N.—10. 8. 1892. To walk off a touch of lumbago I started off at noon [with a companion]. On our way we read and discussed Mr. Bell's paper read to the Anthropological Section of the British Association. To Peckham Wood Corner : searched heaps of stones in Woodger's currant plantation, finding two implements. On to Hawkins' Corner : examined the earth thrown out in digging a tank—apparently Clay with Flints, or possibly Woolwich beds beneath the drift capping. To Hodges' house ; obtained some spoil. On to Stansted heights and Fairseat. Examined the field south of Waterlow's old house and found many old olds. A delightful turn.

Harrison's last visit to his old friend J. B. Bevington took place on 12 August, 1892. He had gone to Sevenoaks for the purpose of arranging Mr. Bevington's collection of implements, but the visit was prolonged in order that he might describe the reception of the rude implements at the British Association meeting. Harrison's note of this visit gives a picture of his

aged friend, too infirm to go to the Plateau himself, but an enthusiast to the last.

N.—When I was about to take leave of Mr. Bevington, he took me to his bedroom, from which was to be seen a fine view of the gorge of the Darent. Pointing to it, he said, 'Now I want you to tell me where you have placed man, by proof, in relation to the valley before us'.

Indicating the fir-clad height on the Plateau above Shoreham, I replied, 'You see the serrated line of fir trees near Dunstall? At that level, and in an old drift, a palaeolithic implement of the accepted type, a deeply stained, water-worn specimen, has been found. Sir John Evans admits its authenticity'.

'Enough', he exclaimed, 'I am satisfied'.

I left him, at three o'clock, for the last time. He was taken seriously ill a few days later and died on 20 August.

N.—14. 8. 1892. Started in the evening to Wrotham plain, noting the spread of gravel in Stanley's hop garden—nature's work but not man's. Up the hill to the telegraph house: observed flints on the crest and searched on the ochreous patch, finding one broad crook point tool and one double scraper, rude and but little worked, but convincing.

In the summer of this year Harrison decided to make a pilgrimage to the garden of Charles Darwin at Down. In order to avoid possible disappointment he obtained in advance Mrs. Darwin's permission to wander through the grounds in which the great thinker had conducted some of his most interesting experiments.

The pilgrimage took place on 16 August, Harrison being accompanied by his son.

N.—16. 8. 1892. Visit to Darwin's house. Left home by 8.43 train for Orpington.

To Green Street Green gravel-bed, secured a bone, and some natural flints to illustrate how nature attacks the exposed portions and leaves untouched the protected hollows—the reverse of the Plateau implements with worked hollows. Noted and sketched the moved Chalk section with shattered flints *in situ*, distributed and separated in the Chalk and in the trailed drift capping it.

Walked up to Snag Lane: the field was in corn, so we searched on the adjoining field to the west, finding one implement of the Plateau type. On through High Elms park—a beautiful walk through

the wood to Down. Examined every stone heap, but failed to find any ochreous flint.

Called on Uriah Palmer, a native of Ightham, aged sixty-five, who, having removed to Down fifty-five years ago, knew Mr. Darwin and his family well. He sent his grandson to conduct us to the church, to the tomb of Erasmus Darwin, and to Charles Darwin's house, which lies on the Plateau south of the village. Mrs. Palmer was full of pleasant recollections of the Darwins: how the old gentleman rode by daily at a fixed time, his stout cob, the tall figure upon it, his words to her relative, the throwing of a shilling to her grandson, his kindness, his attendance at church at every christening, wedding, and burial—although he was not a church-goer—his subscriptions to local charities—'Let anyone go to him in time of trouble from accident or calamity'—and his ready assistance, 'if they had not brought it on themselves',—and so on.

When we arrived at Darwin's house, Mrs. Darwin sent us a message to go where we pleased, and, shortly afterwards, a friend of her husband's who was staying at the house came to take us round and show us everything of interest. Our guide took us to the secluded walks at the end of the grounds, where was Darwin's sand path. A huge gnarled beech was passed on the way, and a good section of Clay with Flints was exposed in a neighbouring field, which I longed to examine, but time was precious. The garden beds and borders disclosed the presence of pebbles, as if a remnant of Tertiaries exists there—and the name sand path may possibly arise from this. There is a good outlook to the west, across a deep valley to Keston and Holwood.

A pleasant walk by the plain brought us to a point where Cudham church, standing directly on the Plateau, comes in sight—a very striking position.¹ The churchyard contains two fine yew trees. The grave sections showed Clay with Flints—one piece of ochreous flint found. This was the only piece we found on our way. No [other] sections were seen.

Before reaching Knockholt beeches we crossed a deep valley, and it seemed from the vegetation as if the clay covered it. On the eastern side, near the road leading towards Brasted, was a very deep carmine clay covered with a drift of flint. The beeches stand on the plain, rather than close to the scarp.² All the fields were in pasture.

¹ Illustrated in the original note by a sketch.

² The beeches at Knockholt form a prominent landmark, and Harrison had frequently seen them, standing on the Plateau against the sky line, from points near Ightham.

A deep terrace runs across the field to the west of the beeches, which by some persons might be attributed to agricultural operations, though, in my opinion, it is too pronounced a terrace for such an explanation.

Well Hill was a conspicuous feature from Down, Knockholt, and in fact everywhere; and its importance as a link with the past could be appreciated from every vantage point.

We took a footpath by a corn store just past Knockholt pound, passing through a big wood showing Tertiary patches—the heather, *tormentilla*, grasses, etc., all indicating the presence of Tertiary sands below and in the top drift, though flints in the latter must have been drifted there.

We turned into a gate by the Polhill Arms and walked through the wood to Shepherd's Barn. In Meenfold Wood we found ourselves amongst the pheasants—a large number guarded by a little fox terrier on a long chain.

On reaching Darent Hulme we found that Professor Prestwich had gone to the village, where we met him. After getting tea, we walked home over the hills and by way of St. Clere and Yaldham footpath.

Harrison enjoyed his outing to Down very greatly. The long walk over a portion of the Chalk Plateau that he was seldom able to visit was in itself of great interest to him. The route followed was so selected as to include gravel-beds that he had had little opportunity to examine on earlier visits, and points of interest associated with a pleasant recollection of some former excursion. He made several short calls on acquaintances whom he had not seen for many years, and in each case found a hearty welcome waiting him. He paid homage to the memory of Charles Darwin, for whom his admiration was unbounded. He returned home by way of Shoreham, principally in order to tell Prestwich all the incidents of the day, and he chose a final walk of eight miles over the hills from Shoreham to Ightham, in the evening, in preference to the less tiring journey by railway, from sheer exuberance of spirits.

Like many of his fellows whose interests lay within the domain of science, Harrison thought but little of the clothes he wore, and it usually fell to his wife to tell him that the time had come for a coat to be discarded or that a cap was of a pattern too ancient to be any longer endured.

B. Harrison to E. Harrison.

18. 8. 1892

Your mother yesterday bought a new cap for me at Maidstone—a very nice one, of good material, but the shape exactly that of the cap she dislikes. We all chaffed her about it, but My Lady thinks it is different.

The discovery of numerous bones and other animal and vegetable remains in a fissure by the Shode stream near Basted, to which reference has already been made, added a new feature of great interest to the Ightham district. Although Harrison left the detailed investigation of the contents of the fissure to Mr. W. J. Lewis Abbott, he visited it at short intervals, and kept in touch with the workmen in order that the finds made by them might all be preserved for examination.

N.—17. 9. 1892. Professor Prestwich, Rev. R. A. Bullen, and Mr. Lewis Abbott came over. We met at the fissure, which we examined. Inspected the spring head by the upper mill pond. Home, and had a look at the old olds.

N.—25. 9. 1892. Walked to fissure in evening. A slight sprinkling of yellow flint on the plain above.

N.—2. 10. 1892. Walked to Hadlow. Examined Dunks Green gravel: much ochreous flint, but could find none worked. To Goose Green—now being largely excavated; closely examined the stone heaps, no old olds. The sections shown are too new, mostly earthy matter, not a mass of stone as at Limpsfield.

N.—6. 10. 1892. Lord Tennyson passed away. A dull, wet, gloomy morning. Tired with doing nothing, at noon I determined to face the elements, believing it would clear. The clouds lifted as I ascended Exedown, and by the time I reached Terry's Lodge the sun shone brilliantly. On my return, as I left the old road at Exedown, and got nearly abreast of the Pilgrims' Way, the full moon in the east was truly magnificent. The calm and bright moonlight scene will live in my memory, and was so fitting for the passing of our sweet singer.

N.—13. 10. 1892. To Darent Hulme with Mr. Bullen to meet Sir John Evans. The carriage was at the door as we arrived, so I hastily arranged the specimens which I had brought over and placed them before him—not a word. From his remarks as to 'your sort' and 'my sort' made during our drive together I found he was still unconvinced.

B. Harrison to A. M. Bell.

10. 1892

Immediately on my return home on Wednesday last my wife said, 'Well, did you convert Sir John?'

'No'.

'Then here is a solace for you'.

This was a presentation copy from A. R. Wallace of the latest edition of his *Natural Selection*, containing his article on prehistoric man in America which I read several years since in the *Nineteenth Century*.

The article so took my attention that I copied it, entire, and afterwards wrote to the author. Since that time we have corresponded.

The book was indeed a solace as, tired and somewhat depressed, I read myself to sleep, awaking refreshed and strong enough to cope with our learned antagonist.

Harrison's anxiety to 'convert' Sir John Evans to his view respecting the rude implements was undoubtedly great, and shortly after the events described in his note of 13 October he sent to him a box of specimens for examination, and wrote to him a letter describing the evolution of his own ideas on the subject.¹

B. Harrison to Sir John Evans.

26. 10. 1892

I wish to disclaim aught like a desire to set up a theory. I ask leave to lay before you evidence, from notes and observations, which has occupied my attention for many years. I do so as a humble seeker after truth and not as one by whom truth has already been discovered. . . .

After a long apprenticeship in the neolithic stage I became a student of the palaeolithic, then, having acquired many excellent examples of palaeolithic skill, I asked myself the question, 'Do these represent man's first essay? If not, where are such first essays to be found in my area? If these palaeoliths represent the copper-plate handwriting, where may I expect to find the pot-hooks and hangers of the initial stage?'

Looking round my district, I had an idea that the unwasted Chalk Plateau would show the earliest series, and there I went purposely in 1878 to examine the stained gravel near Ash where many years before—1864 to 1867—I had noted ochreous stones—'certainly worn

¹ Here reproduced from a draft. It is possible that the letter was altered before being dispatched.

and apparently worked'. I collected these stones and wrote to Mr. Worthington Smith stating that I had what I classed as missing-link specimens.

In collecting many of these rude specimens I became convinced that they could be arranged in groups, and also that some of the stones in each group were so worn that an agent to account for the wear must be granted.¹

It has been a gradual growth on my part, not a hurried rush to conclusions not justified by collected facts.

Sir John Evans to B. Harrison.

29. 10. 1892

I have received the box of specimens and am returning it by rail. Notwithstanding your appeal, I am afraid that I remain of the same opinion still. A certain number of the flints, such, for instance, as several from Ash, are to my mind undoubtedly fashioned by man; there are others which probably have been worked, and others again which possibly have had their edges retouched. The great majority, however, seem to me to have assumed their present forms by natural agency. No doubt early man from time to time used such natural flints when they would serve his purpose, and many of the implements found at St. Acheul and elsewhere show only a small amount of trimming. When the more perfect implements are found with these ruder forms, there is no reason for regarding them as otherwise than contemporary, though they may have been used for more casual purposes than the more highly finished specimens. I see no reason for regarding them as having been formed by a ruder race of men or at an earlier date than the ordinary palaeolithic implements. It does not of course follow that these were man's earliest work, but I much doubt whether the cradle of mankind is to be found in such a climate as ours. As to the flints with blunted edges, so long as there is a possibility of their having been formed by natural agencies, I decline to call in human workmanship, especially as it is almost impossible to assign any purpose that they could have served for men in the lowest stage of civilization. So far as results are concerned, everyone will accept the ordinary forms of palaeolithic implements as having been found at the high levels, and I am doubtful as to the desirability of complicating the question with a second race of men and a set of implements of extremely questionable character. I admire

¹ This passage is a little obscure, but the ideas intended to be conveyed by it were (1) that implements which could be arranged in groups were the work of man, and (2) that their antiquity was great, because, after being made they were rolled in the bed of an ancient river from the places where they were made and used to the positions in which they were found.

your perseverance, and am only sorry that I cannot go further in accepting your evidence.

Letters evidently passed between Evans and Prestwich with reference to Harrison's attempt to win over his 'learned antagonist'. Prestwich counselled patience :

J. Prestwich to B. Harrison. 10. 11. 1892

You cannot force the position.

Have faith in time and right, and wait the verdict of the majority.

J. Prestwich to B. Harrison. 15. 11. 1892

No explanation was necessary. Your collection stands on its merits.

Differences of opinion there will always be. All you have to say is that Sir John Evans accepts some specimens but rejects others. Let everyone judge for himself.

N.—19. 10. 1892. To Ash, 520 feet O.D. : many interesting finds. To Ash Place—four accepted palaeoliths and flakes, some old olds from North Ash pebble bed. South Ash patch was in clover.

N.—11. 12. 1892. A walk to Basted Lane plantation, then to the fissure, which I found opened at the top into a wide chasm. On to Mount House slope patch—one palaeolithic flake.

N.—18. 12. 1892. To Drain Farm—sections not clear, pond full of water. Apparently a drift of flint overlying a deep red, mottled clay. The deep hole to the west of the house was also obscured—no clear section—and also the shallow pond in the next field. I examined the newly-trenched ground by the clumps of fir trees recently planted south-west of Birches—a few ochreous rude implements.

XXII

1893—AGED 55

AMONGST the acquaintances made by Harrison as the result of the publication of the papers announcing his discoveries was the late Henry Stopes, a geologist who had travelled widely, and who had collected a great number of stone implements. Harrison took him for several long walks over the Plateau, and quickly satisfied him of the artificial character of the rude implements.

N.—5. 2. 1893. With H. Stopes to Ash. Lunched at the Swan inn. Mr. Stopes regretted the loss of time while lunch was being prepared. I said, 'There need be no delay, we have just time to go and find a palaeolith'.

We walked across the churchyard, and in the first stride [over a field to the north of the church] Mr. Stopes found one of the best specimens yet obtained from this position.

In the early part of 1893 a series of the Plateau implements was purchased for the British Museum. Harrison was anxious, as he put it, 'to establish himself at Bloomsbury', and thought that the national museum should have some of the best specimens in his possession. Prestwich, on the other hand, considered that the set which Harrison had selected was too good to be representative of the Plateau group of implements as a whole.

J. Prestwich to B. Harrison.

19. 4. 1893

I saw Mr. Read and Mr. Franks yesterday. They will be willing, with consent of the Trustees of the British Museum, to purchase the collection you sent them. It is not, however, the typical collection I had hoped to see. The specimens are *picked ones, and far too good*

as representative of the Plateau group—some of them are unique. What I would suggest is that you send in addition a small series of *type* specimens¹—either your types or mine. . . . I would come over some day and help you to make a selection.

I have to thank you for the specimens sent me. Fewer would have sufficed, but these also I should like to have in types, as I have so little room for their display, and a general lot fails to convince unbelievers.

The Kent county museum at Maidstone, to which Harrison had presented his first collection of implements in 1880, was also anxious to secure the whole of his implements illustrating the Medway gravels, the curator urging the claims of the local museum even against the British Museum.

‘It would be a matter of great regret to me as curator of the museum’, he wrote on 9 May, 1893, ‘were I to find on visiting, say, the British Museum, that they had there from your series a series of Medway gravel things’. Harrison was not indifferent to the claims of Maidstone museum, which ultimately became the home of most of the palaeolithic implements collected by him from the gravels of the Shode (a tributary of the Medway), as well as of many specimens from the Plateau.

Visits to Prestwich took place on 23 April and 5 May, to the Shode gravels on 30 April, and to the Plateau on four successive Sundays—7, 14, 21, and 28 May.

The Basted fissure, at which Mr. Lewis Abbott was working, was the object of many walks, as its nearness to Harrison’s house enabled him to visit it readily. A Sunday morning walk to the ochreous drift of the Plateau was often followed by a quiet evening ramble to the fissure.

N.—27. 8. 1893. At 7.30 to Fane Hill; on the lower slopes I found a finely worked implement.

At 2.30 to Wrotham Hill patch: found the butt end of an accepted palaeolith, and many rude implements. On to Plot Farm and Fairseat.

The search of the valley gravels for specimens of the rude implements or, as they now began to be called, eoliths, continued,

¹ i.e. of the rude implements or eoliths. The specimens which Harrison had sent consisted principally of Plateau palaeoliths.

and occasional references to the subject appear in the current notebook, as, for example :

N.—30. 4. 1893. Up the Shode, found old olds in Bay Shaw ; a long search on Fane Hill—none.

N.—3. 9. 1893. To Fane Hill—a long search, but not a single specimen of old old work.

This negative evidence confirmed Harrison in his opinion that the eoliths had been artificially chipped. Had they been merely the work of natural forces it was to be expected that they would be found in large numbers in all flint-bearing gravels alike.

N.—1. 10. 1893. Started at nine ; there were clouds in the south-west as we ascended the Chalk hill, but with us it was a perfect day. Across the fields from the old gate-house before arriving at the farm [Terry's Lodge]. We crossed a ploughed field on the side of the small shallow valley—no ochreous flint—through a plantation and wood, and emerged on the road a quarter of a mile east of Kingsdown—Clay with Flints.

To Kingsdown church—painted glass said to be 500 years old—ascended to the gallery. On past Crowhurst Farm : searched a field south-west of Broomfield Wood—no ochreous gravel, many pebbles. To the Crooked Billet : cherry trees ablaze with autumn colour in the wood south-west of the road. Just before arriving at the Billet, we noticed a pebbly wash at least eight feet deep, by the roadside, under a thick flint drift.

N.—15. 10. 1893. To Basted fissure, meeting there Messrs. Lewis Abbott, Horne and A. Smith Woodward. We found and examined many bones, one of considerable size. After returning home to see the cave and Shode implements, we walked to Oldbury : the rock-shelters, Middle Wood rock, and the ditch. Again returned home and examined the eoliths.

Mr. Lewis Abbott, whilst not always agreeing with Harrison as to the category—nature or man—to which individual specimens should be assigned, was quickly convinced that the tools of eolithic man had indeed been discovered on the Plateau. His continuous work in the exploration of the Basted fissure brought him frequently to Ightham, and after a strenuous day amongst the bones in the quarry, he would call on Harrison

towards evening for a chat on subjects of common interest and an inspection of recent finds.

Mr. Abbott exhibited and described a series of coliths at a gathering of the Geologists' Association in the latter part of 1893. He called on Harrison, after a day spent at the fissure, shortly afterwards, and the latter made a note of their Sunday evening talk. 'Sir John' is of course Sir John Evans, who was not even yet a convert to 'the true faith'.¹

N.—5. 11. 1893. Abbott came in and we had a long and interesting chat on his experiences.

After giving his little lecture, and whilst satisfying Whitaker and others who were highly interested in the coliths, he was addressed by Dr. Hopkinson,² who asked,

'But what does Sir John say to them?'

Abbott did not at once reply, and the question was repeated, 'But what does Sir John say to them?'

Abbott this time answered, 'I rely on my own conclusion, as you did when you discovered a certain new fossil. Now, sir, you proved to be right, and I too claim the right of independent judgement. But I will add, in the words of the greatest man that ever lived, "Go and show John again the things which you do hear and see!"'

Dr. Wallace urged Harrison to dig :

A. R. Wallace to B. Harrison.

8. 11. 1893

I am glad to hear by your letter that you are still adding to your collection of old flints and still making converts. . . .

I have been lately writing on the glacial period, which has long interested me ; and if you have the opportunity of seeing the *Fortnightly Review* for this month and next, you will see two articles of mine on 'The Ice Age and its Work'—the second one treating of the ice origin of lakes, which is quite a hobby of mine, and I think I have found evidence which *demonstrates* that many of them were ground out by ice, though Professors Bonney, Prestwich, and all the Alpine climbers will not believe it.

I suppose you have not found any of your old flints yet, in situ, by digging, or in the undisturbed gravel at some distance below the surface. When you do that you will have more converts.

¹ See letter of 4 April, 1892, at page 177.

² Dr. John Hopkinson, F.L.S., F.G.S., of St. Albans, a near neighbour of Sir John Evans.

XXIII

1894—AGED 56

THE most notable event of the year 1894, so far as Harrison was concerned, was the making of an excavation in the ochreous gravel on the Chalk Plateau at Parsonage Farm. He had previously found solitary eoliths *in situ*—in holes dug for the posts of a fence, in the bank of a pond, and elsewhere—but it was at Parsonage Farm that he established, beyond question, the fact that the chipped eoliths which he had found in such large numbers on the surface were also to be found in the drifts below the surface.

The first excavation in the drift was made by the landowner for his own purposes, and Harrison learnt from one of his scouts that eoliths had been found there.

N.—2. 6. 1894. Tommy Skinner came down with rude implements found in the earth thrown out from a pit dug near Ash, 520 feet, O.D.¹ Some were found at depths of six to eight feet. The stones were much worn and striated—must go.

‘Tommy Skinner’ was the son of one of the labourers who had been educated to find and recognize implements. The boy had developed an aptitude for distinguishing ‘the right sort’, which had a market value, from natural stones which, if carried laboriously to Ightham, were at once consigned to the waste heap.

N.—3. 6. 1894. Started at five p.m., viewed section in pit in chalk hole near 770 feet, O.D., through path on crest in Cooper’s Wood,

¹ i.e. Parsonage Farm.

to section south-east of Horse and Groom : fully six feet of clay and flints.

To Skinner's. Tommy accompanied me to the newly-dug pit, which I ascertained from the bailiff was about ten to twelve feet deep : mould on top, then flint on gravel, then loam. The Chalk was not reached : 'We wanted to reach it in order to let away water', said the bailiff. I visited the section, or, rather the now filled-in pit—it lies due west of two dead trees in a line. There were many pebbles in the stuff thrown out, the matrix apparently being Reading beds, not so deep a red as the hill crest clay. The crop (oats) was too high to admit of much search, but from the immediate surroundings I obtained some striated stones and an interesting worked pebble.

It was what Harrison saw in the earth thrown out from this pit that determined him to excavate there, if practicable. The opportunity came a few months later.

A request was received from Prestwich in June for specimens with which to confute unbelievers :

J. Prestwich to B. Harrison.

8. 6. 1894

I expect to see some sceptical friends this summer, and should much like to show them a series of Plateau implements such as may convince them. Could you, therefore, now let me have those others you promised me ?

Such a request aroused all Harrison's enthusiasm for the 'cause'. He straightway selected a series of specimens, and, within a few days, delivered them in person to Prestwich, learning at the same time something of the circumstances that led up to the recognition, in 1859, of the value of the discoveries of Boucher de Perthes.

N.—13. 6. 1894. To Shoreham, Darent Hulme. I arranged the specimens I had brought on the table, and we had a long chat upon them.

Mrs. Prestwich said, 'Do not mind the non-acceptance of the eoliths by some people. Remember the case of Boucher de Perthes. He was for more than ten years alone in his opinion, no one admitting that his palaeolithic discoveries were the work of man. But my uncle, Dr. Falconer, and I were passing through France and we called on him. We saw his finds and recognized that they were artificial.

Dr. Falconer at once sent word to Dr. Prestwich and Sir Charles Lyell, and they went over; and then the world saw that the old archaeologist was right'.

I asked, was she present when Prestwich and Lyell came over and accepted them.

'No', she replied, 'unfortunately we had gone on to the south of Europe'.

Here was a supreme moment, to be in contact with the first persons who examined and recognized the artificiality of Boucher de Perthes' finds.

A. M. Bell had championed the cause of the rude implements at the meeting of the British Association at Edinburgh in 1892. It fell to Professor T. Rupert Jones to undertake a like service in 1894, when the meeting was held at Oxford. Before doing so, he took an opportunity to visit Ightham.

N.—18. 7. 1894. Professor Rupert Jones arrived at 1.30. First, we had a turn in the museum, and later in the garden, where I could point out to him the configuration of the Chalk hills. After a couple of hours among the flints in the garret, we drove to Basted to see the fissure.

After the British Association meeting Harrison received the following letter :

T. Rupert Jones to B. Harrison.

15. 8. 1894

In the *Times* of Saturday you will have seen a reduced report of our paper on the rude implements, and the discussion, as full as newspapers usually make them.

Of course, nobody confessed himself actually converted to a belief in either the 'rudes' or the theory of their geological history, but many have heard of them for the first time and many may have got hold of our ideas about them. I was told that my summing up . . . was likely to be as effective as the more formal reading and speaking.

I am glad that Professor Prestwich is better. In my paper was a full allusion to the remarkable agreement of his later observations with those made in 1847 as to the elevated range and consequent geological changes, down to the times of all the gravels, etc., and to the great pleasure that he must have had (as I know he has) in finding all his links susceptible of proof. . . .

Other echoes of the British Association meeting were heard :

A. M. Bell to B. Harrison.

10. 8. 1894

The debate [a joint discussion by sections C & H] is over. . . . It is not a triumph, it is not a defeat, but leaves things much as they were.

Rupert Jones opened, and has been firm as a rock throughout. Whitaker followed, and I could not understand his drift. I came on, and spoke on the anthropological side only. . . . Evans followed, admitting the great age of the drifts, and accepting them as belonging to the *palaeolithic stage*. Would not admit one of the primitive type ; saw no reason to seek to find some new kind of implement when the palaeolithic hâche was there ; could not persuade himself that man was born in Kent. . . . Hicks followed, to prove man of glacial age. Boyd Dawkins next, chiefly geological ; *thought he could match all our tools*. . . .

Pitt Rivers next, who said he agreed with me there was a long advance before palaeolithic man came on. . . .

Then Clement Reid spoke : saw no sign of Pliocene man.

Rupert Jones replied very firmly, said that everyone had been on his side.

Last, Sir William Flower said that the discussion had been useful, but he did not think that any opinions had been changed by it.

There are, as you know, some obscurities both geological and anthropological. It was always a difficulty to me when the worn palaeolith appeared with the other types. *It did complicate the question.*

J. Prestwich to B. Harrison.

20. 8. 1894

I am about to republish in a separate volume¹ some of my geological papers, including the one on the Plateau drift in the *Journal*, Anthropological Institute. . . .

I am thinking of giving one plate,² with a few of the typical forms. . . . Do you think you have in your collection any specimens you could lend me that would do better than those I have here ? If so, could you give me a rough sketch of them, with their numbers ?

J. Prestwich to B. Harrison.

26. 9. 1894

I have now made a nice selection of your specimens for the plates. . . . The only type in which I am rather deficient is the [double

¹ *Collected Papers on some Controverted Questions of Geology.*

² Twelve plates of Plateau implements were given in the published volume.

scraper]¹ which, as being one of the most typical forms, I am desirous to do well. Do you think you could let me have two or three more to choose from?

A grant which had been made by the British Association towards the cost of excavations at Oldbury not having been wholly expended, the balance was applied (a) to the investigation of a high-level drift on the face of the Chalk escarpment and (b) to an excavation in the ochreous drift on Parsonage Farm.

The excavation on Parsonage Farm was begun in October, 1894. It was undertaken in order to prove that eoliths were to be found in the drift *in situ*, a question that was already substantially determined by the finds which Harrison had made, as opportunity offered, in sundry open sections.

The Committee of the British Association responsible for the excavation included Sir John Evans, Professors Prestwich and Seeley, and Harrison. Prestwich was too infirm at this date for active field work, and Harrison was left to supervise the operations, and to inform his colleagues of the progress of the work. A labourer named Hodges was employed to dig the pit.

B. Harrison to E. Harrison.

31. 10. 1894

Hodges brought down rare spoil on Monday evening, some thirty or more, real convincers.

J. Prestwich to B. Harrison.

30. 10. 1894

I cannot judge of the success of the section without seeing specimens of soil and implements. It seems to promise well.

I have never had, nor have I now the slightest doubt about the age and character of the Plateau implements. As I have told you all along, it is only a question of time.

J. Prestwich to B. Harrison.

2. 11. 1894

I expect the water will soon run off in the pit. Go down to the Chalk. Instead of sinking another pit only a few yards distant, it would, I think, be better to go to a greater distance and select a spot where the Red Clay with Flints is well developed, and carry the pit through it down to the Chalk.

¹ The original letter contained a rough sketch of a stone of this type.

J. Prestwich to B. Harrison.

28. 12. 1894

I shall be glad to see some of the washed specimens of the gravel. I think I told you that the lower beds of the pit are Tertiary.

Sir John Evans wrote with regard to the evidence from the pit :

Sir John Evans to B. Harrison.

13. 11. 1894

The flints of which you send rough sketches have more the appearance of having been intentionally shaped than the two that I have here. Has the absolute uselessness of such flints as tools never struck you, nor the fact that if the edge of a flint is chipped by hand it may just as well be made to present an acute as a right angle ?

An amusing note of this year illustrates Harrison's relations with the Ightham lads whom he had taught to recognize and to bring him implements found in the gravels. Whether Seldon was morally entitled to the present of tobacco is a debatable question.

N.—29. 5. 1894. Smith (x) said, 'When Seldon (x) and I were working on the railway he said to me, "I wonder whether we shall find any flints for Mr. Harrison". We did not find any of the right sort, not your sort, you know.

'He said, "Here's a big 'un, I'll take him home and hammer him up a bit, file him, and make him look like one of the right sort".

'When he brought it to you, he thought you would not know it, but would think it was one of the right sort. He asked you if it was one of the right sort, and you said, "This is one of your own make, Seldon".

'Seldon said, "I thought he would not know, but I was too tricky, he know'd it. It's no use taking home-made ones to him, he knows too much. But he give me some tobacco for being tricky".'

XXIV

1895—AGED 57

IN the opening days of the year 1895, Harrison was informed that the Council of the Geological Society had awarded him a moiety of the proceeds of the Lyell Fund for that year, an honour which he appreciated both for the compliment to himself and for the confidence in the value of his scientific work which it implied. Prestwich, who may have been instrumental in bringing his claims to the notice of the Geological Society, wrote expressing approval.

J. Prestwich to B. Harrison.

15. 1. 1895

You will, I presume, ere this have received a communication from the Geological Society on which I most sincerely congratulate you. I hope it will not only prove of substantial assistance, but it will also satisfy you that a majority of the Council have faith in your discovery. . . .

The cold winter of 1894-5 extended to the south of England, and was often mentioned in notes. A thermometer hung on a wall outside Harrison's house, and he would take a lamp and go out of doors to examine the instrument on the coldest of nights if there seemed any likelihood of noting a record reading. Even Arctic weather, however, may have compensations, such as dandelion wine taken under exhilarating conditions.

N.—27. 1. 1895. Brilliant morning, fifteen degrees of frost. [With three companions] to Terry's Lodge. On our return journey we had a long turn sliding on the pond close to the keeper's house, Old Terry's Lodge. Capital.

The keeper's wife brought us out dandelion wine.

N.—3. 2. 1895. Very cold, twenty-five degrees of frost during the previous night. Feeding the birds all day—a vast assemblage.

The last paper written by Prestwich on the subject of the Plateau implements appeared in a review in the spring of this year.¹ In it he used the name *coliths* for the rude implements, and by that name they have since been generally known.

Shortly afterwards Harrison was invited to exhibit a series of *coliths* at a *conversazione* of the Royal Society. This was an opportunity not to be missed, and he informed Prestwich of his intention to send for exhibition the specimens found *in situ* in the excavation in the drift at Parsonage Farm. Prestwich did not dissent from this proposal, but he advised the exhibition also of carefully selected surface specimens, arranged in groups. Harrison followed this counsel in the main, but he included too large a proportion of specimens from the pit, and amongst them specimens which did not impress those who saw them so much as he had hoped.

J. Prestwich to B. Harrison.

31. 5. 1895

I am extremely glad to hear of the exhibition at the Royal Society. Exhibit the pit specimens by all means by themselves, but you should also exhibit separately, and in *groups*, your surface specimens, with the additions, if you like, as you suggest, with reference to my theory and classification. I could, if you like, lend you a set of plates to serve as guides.

Your surface specimens are essential. The request of the Royal Society is an honour. I always told you that only time was required.

J. Prestwich to B. Harrison.

14. 6. 1895

I suppose you were present at the Royal Society *conversazione*, and I hope, pleased with the result. I am told that the specimens you sent 'were too large and clumsy, and that smaller and neater forms would have been more impressive'. You should have taken my advice and chosen specimens in accordance with the well-defined and small types figured by, Yours truly,

JOSEPH PRESTWICH.

¹ 'The Greater Antiquity of Man'. *Nineteenth Century*, April, 1895, page 617.

J. Prestwich to B. Harrison.

17. 6. 1895

I am sorry you did not follow my advice about the Plateau implements. . . . As it was, I fear it was an opportunity missed. As, however, I have told you over and over again, you need not fear but that the belief in the specimens will eventually become general.

Some correspondence respecting the implements from the Parsonage Farm pit took place at this date with Sir John Evans, to whom Harrison forwarded a notebook containing his sketches of the specimens.

Sir John Evans to B. Harrison.

16. 6. 1895

The specimens look better in your sketches than in nature. I fail to find any chipping on them otherwise than what could have been produced by the edge being exposed to being bruised among rounded pebbles. They look to me like fractured flints in the first stage of being worn into pebbles.

Much the same chipping might be produced by hand, but if so, the purpose is not apparent.

N.—28. 7. 1895. Very wet day, did not stir out, but kept sorting and sketching implements. Hodges came down in the evening, and brought spoil sufficient to occupy me and to raise my total of rude implements to 4001.

It was necessary for a report to be drawn up for the British Association concerning the excavations made with the grant from that body. The fund allotted for the purpose was exhausted before the pit had been dug to the depth desired, but Harrison continued the excavation in order, if possible, to pierce the Tertiary deposits underlying the drifts, and to reach the sub-jacent Chalk. The attempt was given up when a depth of twenty-seven feet had been reached.¹

B. Harrison to A. M. Bell.

5. 8. 1895

I have sent in my report on the excavations, and Professor Prestwich wrote yesterday that it was to be printed as sent—so the scientists assembled at the British Association meeting will be once more bothered with the old stones.

¹ In an excavation made at a later date for drainage purposes, at South Ash, a few hundred yards from the Parsonage Farm pit, the Chalk was reached at a depth of thirty-six feet.

Yesterday I went to South Ash, but, alas, just as the coveted patch was reached, a terrific hail and rain storm came on, and I had to flee for shelter to a neighbouring farmhouse. The farmer, Mr. Sparks, very kindly invited me in, and for an hour or so we were snugly seated beside his fire in a huge, old-fashioned chimney corner.

He was a man whose land I had not cared to encroach upon, though I was desirous to pace some of his fields. However, our chat presently touched upon the old flints, and I obtained permission to go where I please. This opens up a new area to me, and when the fields are bare after harvest, I must take advantage of his offer. He became interested when I gave him a little explanation of the flints : the more so as a fortnight since some forty members of the Geologists' Association visited Ash and created quite a sensation, when it became known that the old flints had drawn them there. Their visit paved the way for me.

The 'new area' so opened up included part of the unwasted ridge, and Harrison obtained from it a number of rude implements which he marked as found on 'Sparks' Farm'.

N.—8. 9. 1895. To Shoreham at 11.40, to meet Dr. Frank Corner, who arrived by the 12.32 train. In the interval I went to the church, hearing two hymns and the sermon. I had a few words with the Professor and Mrs. Prestwich, and afterwards returned to meet the train.

We examined the field at the foot of the Chalk hill for neolithic flakes, and found rude implements on Dunstall patch. Chatted to an old man at Woodlands who said he was 101 years old, but his further statement that he was nine or ten years old when the battle of Waterloo was fought disproved his assertion.

In a later note Harrison stated that the above occasion 'was the last time Prestwich attended a service in Shoreham church, and I never saw him out of doors afterwards'. He was, indeed, in the last year of his life, and his health failed finally within a few weeks after the meeting on 8 September. Harrison's affection for his veteran 'master' was sincere and deep. It was in no way diminished, but was rather enhanced by the touch of imperiousness in Prestwich's make-up, which with his orderly mind, and passion for accuracy and precision, made him an exacting though always a kindly and considerate leader.

N.—2. 10. 1895. Spurrell came, and returned by the 12.21 train. I accompanied him as far as Shoreham, where I alighted. I walked up to Darent Hulme.

I found the Professor lying on a sofa near the window, and reading without glasses.

We went through the old olds in his cases, separating those for his cabinet and packing up mine.

Nearly every stone had some special interest and spoke of long-ago excursions. Here was one picked up on our first visit to West Yoke, marked in strong bold writing, 'West Yoke', another from Snag Lane recalling two excursions there in successive weeks—the first of which is memorable for the long walk he and I took across country from Snag Lane by Norstead to Pratt's Bottom.

Here was a stone bringing vividly to mind the long excursion which I took to Strood at his request, to note the composition of the gravel at Cobham, when he was writing his paper on the Westleton beds,¹ and my walk home via Meopham, Fairseat, and Wrotham Hill patch. We recalled also my own long hesitation about the flints found in the Wrotham Hill gravel, and No. 1445, about which I wrote, 'Certainly worn and possibly worked', but Prestwich accepted as artificial.

A small fragment of stone, marked as coming from Highlands, threw our thoughts back to a day in 1883 when we took our first excursion there, and I had the pleasure of introducing to him the patch of much weathered flint gravel. Then the halt at Claygate Cross, by Crouch, our long look at Oldbury dip slope, and his remark that set me right about the plain of marine denudation.

Then he handed to me the marvellously found Goose Green specimen,² which led to a long chat, and to reference to later visits to the same place without a scrap of further evidence of man being lighted on.

After a comfortable chat at the tea table, I left, sorry that an early train had to be caught.

N.—22. 9. 1895. Henry Lewis came overnight. We started early, going up the old Exedown road, and finding many flakes of mesolithic age. Noted the deep drift section to the south-east of the Horse and Groom inn. Searched the field to the west of the Horse and Groom and found many worked stones. Catered³ across the field, descending

¹ 'On the Relation of the Westleton Beds, or Pebbly Sands of Suffolk, to those of Norfolk, etc.' *Quart. Journ. Geol. Soc.*, vol. xlv. pp. 84-117; 120-153; 155-181.

² See page 95.

³ To 'cater' is to cross diagonally.

the steep scarp [of a dry Chalk valley] through the wood. To Pink's hop garden : here were many pebbles, as if a bed had been disturbed, and some few ochreous flints. On to Parsonage Farm. A man hailed us from a cottage, and from his spoil I secured some good rude implements, and one much-worn palaeolith, deep ochreous, and bearing old old work on the sides—a speaking implement.

To the pit field, where we found evidence of neolithic, palaeolithic, and eolithic man. Searched the field to the west, noting the outcrop of gravel and finding many specimens bearing work. To the Hope and Anchor inn for bread and cheese. Here we found several labourers and obtained from them some spoil.

On to Ash plain by the footpath, but all had been recently ploughed, so we walked straight to West Yoke patch, on the way picking up a nicely-worked split pebble. At West Yoke we found the conditions very bad for search, but I found a beautiful crook-shaped implement. A call at Rogers' house resulted in our securing a neolithic celt from 'no parish'.¹

A letter from Worthington Smith usually added a light touch to the controversy about the eoliths.

Worthington G. Smith to B. Harrison. 13. 10. 1895

It puzzles me why you esteem your disputed, kicked-about deformities so much, when you have genuine implements and flakes from the same positions. They hob-nob together here, and, no doubt, there are as many hump-backed and bandy-legged works of the Evil One here as with you.

Worthington Smith's letter was accompanied by an ochreous stone, on one side of which he had sketched a creature presumably intended to represent the kind of being that made the 'kicked-about deformities'. It provoked a reply, for Harrison's notebook contains an entry relating to it.

N.—20. 10. 1895. At home all the morning writing and sketching 'Rolands' for 'Olivers' to send to Worthington Smith.

No. 1267. An ennobled ape in exchange for a degraded devil.

No. 3213. A rising man, not a fallen archangel.

No. 1758. Degenerate man, his mark.

¹ A field situate very near to the ochreous drift bed at South Ash, at the point where the parishes of Ash, Kemsing and Stansted meet. Each parish claimed the field as within its boundaries, with the result that the field was said to be rated in no parish.

Nos. 1267, 3213 and 1758 were three coliths. The manner in which he ornamented them may be inferred from his own descriptions.

N.—14. 12. 1895. I secured from Selby's man a gold uninscribed British coin from Ives [Oldbury Hill].

*E. T. Newton*¹ to *B. Harrison*.

24. 12. 1895

I hope you will not mind your specimens remaining with me until after the Christmas holidays. I feel satisfied that most of them, to say the least, show *human work*, and some of these are definitely from one of the pits. . . . Some of the specimens I should be very doubtful about, but there are others that I cannot bring myself to believe are accidental: they have been done intentionally, and, therefore, by the only intellectual being we know of, *Man*.

¹ Mr. E. T. Newton, F.R.S., palaeontologist to the Geological Survey.

XXV

1896—AGED 58

ON opening the morning paper on New Year's Day, 1896, Harrison was delighted to find Prestwich's name in the honours list.

N.—1. 1. 1896. I saw the announcement of Professor Prestwich's knighthood. At once wired congratulations, and then started off on a walk to Fawkham, as I felt that, excited as I was, work was out of the question.

This announcement was the more gratifying as Prestwich was at that time a semi-invalid, and Harrison felt that he would be cheered by the good news. There were palaeoliths to be found at Fawkham, and if one had been picked up on that day it would have been sent, without doubt, to Darent Hulme as a memento. Probably Harrison set out on his walk with the idea of finding a prehistoric relic that would appeal to his old leader, but was for once unsuccessful, as the entry in his notebook is silent about the result of the journey.

The following note is more expansive than usual.

N.—26. 1. 1896. After a very rainy, disagreeable day on Saturday, I yearned for a run on Sunday to shake off the last stages of a cold. I arose at 6.30, intending to start at 8.30. The wind at seven o'clock blew freshly from the south-west, and conditions looked hopeful. Alas, at 8.30 a dense, raw, cold fog came on, and a walk was out of the question. I tried to interest myself in reading but could not.

I determined to start off somewhere after dinner, but on reaching Buley I found the fog at the higher levels, so returned.

I went to lie down, and took up the collected works of Oliver

Wendell Holmes. Owing to the smallness of the type, this particular edition had never been read by me.

I opened the book at about page 110, and soon found that I was reading passages new to me. On reading further, I came upon fresh conceits, and I marked in the margin several passages with a view to copying them. Later on, on comparing this volume with my old copy, I found that the former contained 120 pages of new matter—my book, purchased in 1870, was a first instalment only.

Depressed as I was, the discovery proved a perfect godsend, only to be paralleled by a classical student lighting unexpectedly on the lost books of Livy.

N.—II. 3. 1896.¹ Mr. Lewis Abbott came in unexpectedly at midday. In the afternoon we carefully examined every stone of the heap in the front garden, sorting out neoliths, 400's,² and old olds, finding also some other palaeoliths and turning out many fossils. We uncovered several things long since hidden, among them the worked chert from Sheet Hill, which I was especially pleased to see once more.

In the evening we went to Yaldham to see the huge Oldbury stone block in the field south of the house. I had described it as weighing about fifteen hundredweight, but on testing the ground with a stick, I found that the underground extension was great. Abbott said, 'It is more like a three-ton stone'.

Very mild; many bats flying and toads astir.

The exploration of the Basted fissure, which had been begun in 1892, extended over several years, its recesses being opened up as the Ragstone quarry, which was its site, was cut back. On Mr. Lewis Abbott's removing from Kent into Sussex he was no longer able to visit the fissure regularly, and the work of investigation was continued by Mr. A. Santer Kennard—to whom an apology is tendered for the publication (without permission) of the following tribute :

B. Harrison to E. Harrison.

1896 ?

Kennard, who came on Sunday, proved the right sort—young, strong, full of go, and a demon for work. He is coming again. He has taken the fissure in hand and will come frequently. A worthy one to wear Abbott's mantle.

¹ Extracts from a letter dated 8 December, 1897, have also been incorporated in this note.

² White palaeoliths, found usually near the 400 foot contour line.

N.—22. 3. 1896. To South Ash patch. Stayed an hour and a half, finding some transitional implements and many nice old olds.

N.—26. 3. 1896. At midday an elderly gentleman called on me, saying, 'I have come all the way from London to see your collection and you. I am and have been for more than fifty years a friend of Professor Prestwich'.

He handed me his card—William Cunnington—and I supposed that I was speaking to a man whose name I was familiar with from references in *Prehistoric Times* and elsewhere. This proved correct, and we got on nicely. He was eighty-three years of age and a Fellow of the Geological Society of over forty years' standing, who had known or knew many geologists with whom I also was acquainted.

It was a treat to witness his recognition and appreciation of the rude implements. He advised me to make implements, saying, 'It will give you a good knowledge of the peculiar fracture of flint'.

He told me several anecdotes about Prestwich and other geologists. He said that Prestwich's Coalbrookdale paper¹ was spoken of at the time when it was read as the most carefully prepared and exhaustive paper of the century.

He was well acquainted with Flint Jack, the notorious forger of flint implements. Flint Jack's first appearance was characteristic. He entered Mr. Cunnington's office, and, taking from his pocket some flints wrapped in paper, said, 'I hear you buy flint arrow-heads'.

'You are Flint Jack'.

'Yes', he replied, 'I am, and as I was passing I thought you would like to see some arrow-heads made!'

On one occasion Mr. Cunnington set him up in life and gave him decent clothing, hoping to reform him, but in vain. Mr. Cunnington sent him to Farningham to get some fossils. On his return he produced a stone which he said he had bought for a shilling from a shepherd. Recognizing at once that the stone was a forgery, Mr. Cunnington accused him of making it, and refused to have anything more to do with him. The forged implement was made of sandstone. Flint Jack had shaped it with a pick, and had afterwards rubbed it over with earth to disguise its new appearance.

N.—6. 5. 1896. Mr. Cunnington came again, making a second inspection of my old olds and rock shelter specimens. He brought me some examples of Flint Jack's work, and also an implement

¹'On the Geology of Coalbrookdale'. *Trans. Geol. Soc.*, Ser. 2, vol. v. pp. 413-495.

marked 'St. Acheul, Amiens, Pr. Prestwich, May, 1859', which the Professor had given him.

Later on, I learned from Lewis (who had met him in a gravel-pit at Clapham one day, after which they kept in touch) that he was changing his views.

Mr. Cunnington did not, indeed, retain for long the views that he had formed on first seeing Harrison's collection, but fearing to distress him he did not at once write to him on the subject. The news, however, reached him in other ways.

E. T. Newton to B. Harrison.

15. 6. 1896

I have just seen Mr. Cunnington, and he says he is now of opinion that all the forms found in the pit might be the work of nature and not man!

You will remember my calling your attention to the different colours of the chipping on some of the flints seeming to show chipping at various periods. Mr. Cunnington thinks this is additional proof against its being man's work. This must be carefully kept in mind.

B. Harrison to W. J. Lewis Abbott.

5. 1896

I had grand walks on Whit Sunday and Monday. Four members of the London Geological Field Class came here. We went to the Plateau twice.

I had splendid luck not far from the pit—one find a much worn, light ochreous, accepted palaeolith, and another as rude as my old Fane Hill specimen, No. 33.

My bag strap broke on our return journey, and, alas, the beauty was missing when we reached home.

The specimen mentioned was listed as No. 742, found in 'Pit Field', South Ash, on 25 May, 1896, 'a beauty lost in coming home—bag-strap breaking'. Harrison's bags were knapsacks carried by a strap over the shoulder and weighing, after a successful day, many pounds. The strain on the strap was considerable, and a new bag was always an acceptable birthday present to him.

Sir Joseph Prestwich did not live to enjoy for many months the honour that had been conferred upon him. He grew

gradually weaker during the spring of 1896, and a brief entry in Harrison's notebook records the end :

N.—23. 6. 1896. Telegrams received announcing Sir Joseph's death.

Harrison rarely committed very much of his deeper emotions to paper, and this bald note conveys no idea of his affection for his leader, and the sense of loss that he felt at his death. A few other references add something to our knowledge.

B. Harrison to E. Harrison.

9. 6. 1899

At the time when Professor Prestwich was so ill, I was reading O. W. Holmes's *Life*. I was struck by some verses on his seventieth birthday, and sent the Professor one verse. This Lady Prestwich has embodied in the final chapter¹ on his last illness. The verse inserted is:

*But O my gentle sisters, O my brothers,
These thick-sown snow-flakes hint of toil's release ;
These feeble pulses bid me leave to others
The task once welcome : Evening asks for peace.*

The others:

*Time claims his tribute, silence now is golden,
Let me not vex the too long-suffering lyre,
Though to your love untiring still beholden,
The curfew tells me cover up the fire.*

*And now with grateful smile and accents cheerful,
And warmer heart than look or word can tell,
In simple phrase—the traitorous eyes are tearful,
Thanks brothers, sisters, children—and farewell.*

N.—(undated). Many years ago Professor Prestwich encouraged me to examine carefully the post-glacial beds in the Longfield, Fawkham, and Maplescombe valleys. The first two I soon examined, but it was not until February, 1896, that I was able to work the Maplescombe valley, and by that time the Professor had reached the closing months of his life.

Knowing his weak condition, I hesitated to send him a report,

¹ *The Life and Letters of Sir Joseph Prestwich*, by his wife ; at page 397.

but feeling that it would interest him to hear of the results of my examination of the beds at Maplescombe, I sent the account to Lady Prestwich, asking her to read it to him, or to withhold it, at her discretion. A letter containing further particulars of the same work was written in April, 1896. To this letter Lady Prestwich replied on 23 April, 1896 :

'Your letter has been read to my husband. It is of great interest to him. He wishes me to send you a little message. With reference to your excursions to Maplescombe and Fawkham, he says, "Tell Mr. Harrison the longer he continues his work on this subject the more wonderful will he find the world".'

This was the last message I received from him.

The death of Prestwich marks the end of a period in Harrison's work. So long as his eminent leader was alive he was not only content but eager to work under his direction whenever any hint of work to be done was conveyed to him. After Prestwich's death Harrison, although working in close association with other investigators in the same field, and particularly Mr. Lewis Abbott, on whose geological knowledge he drew freely at need, followed, broadly, his own line of development. He devoted both time and energy to further search and excavations on the Plateau, the results of which strengthened him in the belief there was a time, before the advent of palaeolithic man, when only eolithic people dwelt in Kent.

B. Harrison to A. M. Bell.

14. 10. 1896

I received yesterday a volume of 'Transactions of the Geologists' Association, covering the years 1860 to 1890. I acted as guide in 1866 at Sevenoaks, at Ightham in 1889, and again two years ago when the fissure at Basted was visited. The book furnishes me with a mass of information on many points that were obscure or but partially grasped.

In many instances places within my ken for twenty years past have been visited and reported on. Thus, Well Hill, the hub of the Wealden universe, was first visited by the Association in 1874, Prestwich acting as director. My own first visit to the spot was in May of the same year.¹ On my first visit to Prestwich in 1879, I asked him about his paper on Well Hill. He replied, 'I only described it',

¹ This seems to be a mistake. Harrison's first recorded visit to Well Hill took place on 28 April, 1875.

and said no more. Hence I was no nearer obtaining information about it, but many years afterwards I found out both its importance and his views on the subject from his paper on the Westleton beds.

On my first excursion to Well Hill I found a piece of hard-worn chert. This implied all that I wanted, namely the inclined plane by which it had travelled [northward from the direction of the elevated Weald].

Sir John Evans, in his book, said that he expected to find some difference in style and workmanship between implements that lay in gravel and those that lay on top, but he found none.

He must come to this area to find both the beginning and the sequence—and especially to the Maplescombe valley.

In the autumn of this year Harrison opened another pit in the drift on Parsonage Farm.

B. Harrison to A. M. Bell.

10. 11. 1896

Sir John Evans has written stating that owing to the numerous demands for grants from the British Association for scientific work, none had been made for excavation on the Plateau. He added, 'I am afraid you will be disappointed'.

I wrote to say that it was my intention to sink pits myself, for I was determined to prove or disprove my case.

The results are beyond my expectations: some grand examples of the work of Plateau man, and not a trace of the specialized implements.

N.—13. 11. 1896. Arranged to meet Sir John Lubbock at Kingsdown, in order to show him the pit section at Parsonage Farm, but he telegraphed postponing his visit.

Walked to pit and made some finds. On to Chimhams, where I made a capital find, a mutilated old cripple, transitional in character, bearing old old style of working on the butt end. This find removed all disappointment, and I walked on to Swanley via the pebble bed at Farningham Wood heights. Not a trace of ochreous flint all the way. Examined the pebble gravels—no trace of typical implements, or even of worked split pebbles.

This walk was an education to me and materially strengthened my Ash position. A very interesting series of rounded hill curves, outliers of pebble beds, etc.

N.—1. 12. 1896. Met Messrs. W. Whitaker and T. V. Holmes. Walked to the pit via Wrotham, examining on our way the Horse and Groom (south-east) pit; pronounced by Whitaker to be Clay with

Flints. Noted the pudding-stone block [in Peckham Wood], and Tertiary pebbles on the pond side. A chat on the Sarsen stones in Peckham Wood—unwasted blocks, the softer portion of the beds having long since been removed. I drew attention to the swallow-holes near Horn's Cross.

Arrived at the pit, Mr. Whitaker descended, took the shovel, and pared down the clayey side. He looked upon the disturbed surface as deeper than I had noted, but the section was not so clear as in the first pit. He thought it [the disturbed portion] reached to the black seam at about four feet in depth.

On to the pit to the south-east : unfortunately it had been filled in, but Mr. Whitaker examined the matrix and declared it to be Clay with Flints.

On my referring to his memoir of the Geological Survey, first read by me in 1879, he remarked, 'That is ancient history, it is out of print and will never be reprinted'. He mentioned that the maps were faulty as regards drifts. I was surprised to hear his criticisms—my bible of the London basin was no longer to be regarded as infallible.

There is a little gentle irony in this note. Harrison's researches on the Plateau had convinced him that the term Clay with Flints had been applied too indiscriminately when the area had been officially surveyed, and in particular, that certain drifts containing eoliths had been wrongly called Clay with Flints. He was accordingly not displeased to find that the author of the Geological Survey memoir on the London basin agreed that some of the statements made when the district was originally mapped needed revision in the light of later investigations.

N.—5. 12. 1896. Met Mr. Clement Reid at the railway station. We were driven to Kingsdown, and went on by the lane to the pits. Alas, a slip had half buried the ladder, and we could only just see the black line deposit. Walked up to the filled-in pit, and examined the matrix as far as we could. On our way we looked at the pit south-east of the Horse and Groom. This attracted his attention, and I found that he did not agree with Whitaker's Clay-with-Flints theory.

When we were walking home he spoke of visits to A. R. Wallace and of his happy faculty for making plants grow which had been sent to him from all parts of the world.

I found that Mr. Reid was a stone chipper. He said, 'A collector is a better man for it. He gets a knowledge of the fracture of flint'.

XXVI

1897—AGED 59

HARRISON was always ready to welcome a traveller, as in that way he often obtained useful information respecting the use of stone tools by uncivilized races, and so was helped to unravel the tangled skein represented by the eoliths. He learnt a good deal about the stones used by the Tasmanians, the natives of South Africa, and other primitive races, which seemed to support his own views. A visitor who had travelled in little-known regions of the earth, whether for scientific or other purposes, usually obtained an inspection of Harrison's own specimens, in return for an account of his own observations amongst any primitive peoples that he had seen.

B. Harrison to E. Harrison. 28. 3. 1897

On Thursday a caller came. At first I thought it was Cecil Rhodes—so like him, and so deeply tanned by a tropical sun. He proved to be from South Africa, and announced his interest in palaeoliths, he having found them when mining in Swaziland.

He said that those found were of the same type as some of mine from Brandon and elsewhere.

B. Harrison to W. J. Lewis Abbott. 1. 4. 1897

Chapman has just been down with spoil—one huge striated flake from West Yoke is one of the most remarkable specimens yet found in the Plateau gravels. He also brought a nice polished neolith from Kingsdown. He is one of my old hands. First, he displayed the contents of a parcel : these were passable ; next of his coat pockets : a trifle better ; then his trousers pockets were emptied ; and, finally, the small fry were taken from his waistcoat.

‘That clears me out’, he said.

‘No’, I replied, ‘I want the good one from your breast pocket’.

'Ah, he *is* a good one'—and so it proved: the striated flake.

I went to the point-to-point races yesterday, and took up a position on Fane Hill spread. I had a good search, but found only one rude implement. Hence the argument, 'These may be found on any stone heap', does not hold good.

N.—I. 4. 1897. At night [a workman] called, bringing a splendid example of ripple work on an implement. I was so pleased with it that, after obtaining it, I gave him particulars of its probable use as a sacrificial knife.

He said, 'That is very interesting, indeed it is. Now I want to know if you have such a thing as a history of the world,—perhaps you may have one with the first 300 years. I have one going as far back as 300, but I cannot get one which deals with the first 300 years, and that is what I want'.

The publication of the second edition of Sir John Evans's standard work on the stone implements of Great Britain took place in 1897. It was an event that Harrison awaited with considerable interest, as he was anxious to know precisely how far the author would go in the direction of accepting the eoliths. The earliest news on the subject reached him through a friend :

B. Harrison to E. Harrison.

11. 7. 1897

Evans's book is out. Lieut. Collins came up from Aldershot yesterday, and said it reached him as a present at noon. At two o'clock he started for Ightham, but in the interval he saw that Evans repeats his cautious words : It is not likely that palaeolithic man is the oldest, but he does not think that England will show the earlier or earliest stage, or words to that effect.

A variation of his Oxford phrase : He could not believe that man was born in Kent.

A presentation copy of the book, from Sir John Evans, reached Harrison a few days later. He was disappointed, although in view of previous expressions of opinion he could not have been surprised, that the eoliths were described as witnesses 'of doubtful character'.

B. Harrison to E. Harrison.

25. 7. 1897

On Thursday week, just after Evans's book had come, a man from Plaxtol called. Pulling out a coin, he said,

'What coin is this, sir ?'

'Where did you find it?'

'Behind Plaxtol Grange'.

'Have you ever before found coins there, or pottery?'

'Father did, twenty years ago, and several battle-axes, but he chucked the axes into the trench again. He has many coins now'.

'Can I see him and the coins, on Sunday evening?'

'Oh yes, he'll be pleased to show you'.

I narrated this in a letter to Evans, who said he was hardly able to determine the coin, but had little doubt it was Bactrian. He said it would be interesting to recover the battle-axes.

The incident furnished us with a nice evening stroll. The man is caretaker at Plaxtol Grange, and let us look over the house. The Shode valley, north and south, viewed from the upper windows, was an interesting feature.

The coins proved to be principally mediaeval, the battle-axes the same, from his description of their shape. He added, 'There was a monstrous lot of bones, a monstrous lot sure-ly, but we covered 'em all in'.

The time had now come for Mr. Cunnington to announce the change in his views.

William Cunnington to B. Harrison. 16. 8. 1897

My views have altered very much since I was last at Ightham, and, not being at all a good correspondent, and very unwilling to vex you with the change in my opinions, I have hesitated to write.

The enclosed paragraph expresses some of my views, but there are other points that, as I think, are important, as bearing on the theory that any of these flints were the work of man.

I must hope some day to have an opportunity of speaking or writing more fully on the subject. In the meantime, I most heartily thank you for the earnest, straightforward, and interesting way in which you have brought this branch of the subject before me.

B. Harrison to E. Harrison. Autumn, 1897

Of course you read Sir John Evans's address to the British Association. He seems unwilling to accept anything [eoliths], but he admits the vast change in superficial configuration. That is sufficient for the present.

The ground is being worked, and I find that the Darent heights are being closely searched for evidence of what Mr. Cunnington now calls *glacioliths*.

I have sent him on more evidence and will inform you of his answer.

B. Harrison to E. Harrison.

3. 10. 1897

Worthington Smith has sent me photographs of the Dunstable downs. He writes, 'The valley below the plateau is very deep. I expect most of it has been excavated since the hill-top men lived there. Although this is a midland place, the valley continues irregularly to King's Lynn at the Norfolk Wash, where it reaches the sea, and where greatly abraded palaeoliths are found'.

I found a *greatly* abraded palaeolith on our Plateau on Sunday last, and may well ask, 'Whence came it?'

He is evidently getting alive to the vast denudation since the implements were made, which he seemed disinclined to accept before.

Thomas Harrison, who had left England in 1852, died in Australia on 11 September, 1897. The receipt of the news turned Harrison's thoughts to the boxes of fossils he had received from his brother many years before.

B. Harrison to E. Harrison.

21. 11. 1897

It seemed a matter of duty that I should look through and carefully arrange Tom's Silurian fossils sent me in 1864.

In order to identify them, I consulted Murchison's *Siluria*, which was given to me by Lady Prestwich last year. On the title page is the following quotation, which, I think, applies to Mr. Cunningham's position.

'The men who begin with speculation and end with facts begin at the wrong end : the firmer material should be in the foundation'.

One of the band of scientific workers who were keenly interested in the eolithic question was Colonel W. C. Underwood, a geologist residing at Sevenoaks, who accompanied Harrison on several expeditions over the Plateau in search of implements. One hot afternoon, after a long walk over the hills together, they arrived at Shoreham village, weary and thirsty. Making their way to an inn they asked for tea. But it was the day of a local flower show, and the innkeeper's wife professed her inability to spare time to get ready the meal.

'Damn !' ejaculated Colonel Underwood with vigour, as the disappointed travellers turned to leave the inn.

They had proceeded only a few yards when a little girl overtook them.

'Please sir', she asked, 'are you Colonel Underwood ?'

'Yes, I am', was the answer, 'how did you know me ?'

'Oh, please sir, my father was in the bar when you said "damn", and he was once in your regiment, and he said, "That's Colonel Underwood's damn", and so mother said if you will come back she will be very pleased to get you some tea'.

Harrison said afterwards that it was a very good tea, too, that was obtained for them by 'Colonel Underwood's damn'.

XXVII

1898—AGED 60

IN the paper communicated to the Anthropological Institute in 1891, both Prestwich and Harrison had grouped the rude Plateau implements in types and had assigned to each type a name suggesting its use. Since that time, Harrison had collected a good deal of miscellaneous information, chiefly from travellers, as to the uses to which stone implements were put by uncivilized races, but the question of the purposes for which the various groups of eoliths were used remained largely a matter of conjecture. To a question on the subject put by Sir John Lubbock, Harrison seems to have replied that he was not called upon to explain the uses of the eoliths.

Sir John Lubbock to B. Harrison.

15. 2. 1898

Assuming your Plateau implements to be really works of man, have you any view as to how they were used?

The marks of chipping seem evident, but the purpose seems to me very obscure.

Sir John Lubbock to B. Harrison.

19. 2. 1898

I agree with you that you are not bound in any way to explain the use of the implements, if such they are.

At the same time, it somewhat, I think, influences one's judgement if one could form an idea what use they could have been put to.

The dry chalk valley running northwards towards Farningham, in which stands the ruined church of Maplescombe, was one of Harrison's most prolific hunting grounds. Not only were eoliths and palaeoliths—the latter including both older and newer types—to be found in its various gravels, but also a very



Photo by Elliott & Fry, London

HARRISON IN 1898

interesting group which he called 'transitionals', that is to say, stones which in character seemed to represent the passage from eolithic to palaeolithic workmanship.

B. Harrison to E. Harrison. 2. 1898

Grand finds have been made in Maplescombe valley by Tom Skinner : transitional implements. I have sent them to Mr. Bell to see. They are regular convincers as regards *early* palaeoliths.

B. Harrison to W. J. Lewis Abbott. 22. 2. 1898

The implements from Maplescombe valley were found above the points where I suppose the running power to have formerly trended, at about the 400 foot level. A few ochreous, worked stones, palaeoliths and rudes, are to be seen in the bottom gravel, but on the slope there is much more ochreous derived material, as if it is a remnant of what was.

B. Harrison to W. J. Lewis Abbott. 26. 3. 1898

The beatitude of a blizzard : all day in my room yesterday, big fire, plenty of cigarettes ; got through an immense amount of work, copying essential notes, indexing, preparing sections, etc.

So bad was the storm that everyone kept in, but whilst others may have been miserable, Yours truly, was happy.

N.—8. 4. 1898. A motor car broke down at Dark Hill, and had to be drawn back by a horse to Durling's yard.

This car was probably the first seen by Harrison.

Harrison's son, who was living in Yorkshire in 1898, examined the Chalk hills near Market Weighton, and found there some of the ochreous drift, including a few chipped stones bearing a close resemblance to the Kent eoliths.

B. Harrison to E. Harrison. 4. 1898

It seems to me that your Market Weighton position, if I am right in latitude, etc., is interesting in connection with the Ouse gap through the Chalk.

B. Harrison to E. Harrison. 26. 4. 1898

The map is very useful.

An escarpment may be steep, as at Wrotham, or less so, according as the rocks are hard or soft. I presume the Chalk boundary line is at or near Market Weighton.

Harrison was fond of winding up a lecture on his implements to parties of visitors who called to see his collection, by reciting the following verses (or another set to which reference is made hereafter), a fact that may be allowed to justify their appearance in these pages.

B. Harrison to W. J. Lewis Abbott.

18. 5. 1898

On March 8, in a letter to my son, I quoted the remarks made by Sir John Evans on a very hard-worn implement from Aylesford, 'I wish that the Aylesford specimens could tell their history. They must have seen many vicissitudes before being deposited in the beds where they were found'.

He replied on Sunday, 'I have no news, so send you a tale of a flint'.

THAT CHOCOLATE STONE.

How often we hear of the wrangles they have over one little ochreous stone,

As they say say they can tell all its history long from its chocolate staining alone.

For one gravely asserts it was made by a man, or at least by an anthropoid ape,

Whilst the other maintains that in glacial moraines it was licked by the ice into shape.

One declares it was born on the Wealden heights: it was chipped round the edges and used,

The pride of its maker, in hundreds of fights it hammered, it battered, it bruised,

Till its owner grew tired of the Weald, and removed on a very remote quarter-day,

And, there being no room in the furniture van for his weapon, he chucked it away.

It rolled down the slope in a Pliocene drift, from primitive Sussex to Kent,

Its progress was slow, for a million or so were the years on the way that it spent,

But it got there at last, and its troubles were past, like the days of the Wealden heights,

Though it bids very fair to come in for a share of a further long series of fights.

*For the other asserts that the story is false, that it never came northward
to Kent,
That the place where 'twas found as it lay on the ground was the place
where its life had been spent,
That it never rolled down in a Tertiary drift, ere the glacial period or
since,
But remained all the time on the top of the Chalk in the Clay, yes the
red Clay with Flints.*

*If only that chocolate stone could explain what the dickens it did in the
past,
That those sages might cease from exciting the brain, and the hatchet
be buried at last,
Whether eolith, neolith, nature, or man, could they but of that question
dispose,
Why, those eminent men might relinquish the pen—till a new controversy
arose.*

Lady Prestwich, who published an account of the life of her late husband, applied to Harrison for information as to some of the excursions that he had taken in Prestwich's company. For this purpose Harrison turned to his notes, recalling as he copied them the happy days to which they referred.

B. Harrison to E. Harrison.

6. 6. 1898

Yesterday was a day of real leisure. In the morning I was getting out particulars of an excursion with Prestwich. Lady Prestwich wrote on Saturday for the information, so I occupied myself fully during the morning. Then, at mid-day a read on the garden seat—the first of the season. When we were at the tea-table, there came a ring : it was old Hodges bringing a fine palaeolith found near Plaxdale Green. This set my thoughts on the hill top, so at five o'clock we started and had a most enjoyable turn—up Exedown, and home at 8.30. We found the fly and man orchis, adder's tongue and other flowers.

N.—28. 8. 1898. Arose at four, and worked till nine, sketching implements. To the train at ten o'clock to meet Abbott. At the fissure we continued working till 1.15. Afternoon in the museum.

A friend of Mr. Bell called, bringing a curious flint with apparent striations on both faces. These, however, were evidently caused by the stone having been used as a doorstep. On examining two stones used by us as door blocks, I found the face of one beautifully polished:

the other, being of coarser material, is only rubbed. If the polished specimen should by chance find its way to a field, a finder would be sorely puzzled.

B. Harrison to E. Harrison.

2. 10. 1898

In the summer of 1888, Prestwich and I were about to undertake a series of excursions when he was taken ill and was unable to go to Oxford to receive the D.C.L. degree. I asked whether there was any point he would like me to examine and he mentioned the Crowslands area.

I went to Crowslands, but had no sooner approached the gravel-capped area than a balloon passed over, so low that it looked like dropping near Terry's Lodge. I was tempted to follow it, but the occupants threw out streams of sand ballast and it rose, alighting near Rochester.

I have since paid many visits to Crowslands, but as the patch of ochreous gravel is only about four square rods in extent, it escaped notice until two years ago, since which time I have kept pegging away.¹

In return for an Ash-ite, Sir John Evans sent me a very fine Egyptian knife. Of it he says, 'I am much obliged for the specimen from Ash, which I am glad to add to my collection. In return I send you an Egyptian knife from the neighbourhood of Abydos. It has lost its sharp tang, but it is a good example of the powers of flint working among the early Egyptians. It dates from one of the first dynasties, probably somewhere between 4000 and 5000 B.C. It is something to have a flint instrument to which an approximately accurate date can be assigned'.

In the course of the search for coal in Kent, borings were made in a considerable number of localities, including one at Old Soar, some three miles south-east of Ightham, on the eastern side of the Shode. Fortunately for the amenities of the district no coal was met with.

B. Harrison to E. Harrison.

No date

According to Topley, the Basted valley would be one of the best places in which to sink for coal, as the overlying strata have been removed. Some day it may be tried, but interested parties are getting borings elsewhere.

¹ Harrison opened a pit at Crowslands during this year, 1898.

The date of the above letter was clearly earlier than 1898, in which year the boring in the Basted valley [that is, the valley of the Shode] was made.

N.—28. 10. 1898. To Old Soar, where I found the boring for coal in full operation ; a derrick about sixty feet high, an engine at work, and the cores ranged round the sides of a lodge and marked every ten feet. The total depth reached to-day was 135 feet. A hard core about six inches thick was found at 100 feet depth; it looked like a piece of Kentish Rag, so to speak, out of place. The top twelve feet were yellow—Atherfield Clay and rubbly drift—they are now in the Weald Clay.

Mention has already been made of the finding of ochreous gravel on the Chalk hills above Market Weighton, in Yorkshire, in April, 1898. A few months later Harrison's son visited Beverley, and walked westward from that place up the dip slope towards the escarpment, finding more ochreous gravel, including several stones bearing the characteristic eolithic edge-chipping.

E. T. Newton to B. Harrison.

16. 11. 1898

I congratulate you and your son on the finding of 'old olds' in Yorkshire, and hope that you will get further and Evans-convincing evidence before long.

It is most interesting to find the ancient men were in Yorkshire.

Sir John Evans to B. Harrison.

22. 11. 1898

I am interested in your son's account of his explorations and hope that he may continue his researches in Yorkshire. I see no reason why palaeolithic implements should not be found in the Yorkshire gravels, especially in and around the Chalk districts. I have seen what appeared to be a real palaeolithic specimen that was found near Bridlington. There may even be quartzite or hard rock implements, as well as those of flint.

B. Harrison to E. Harrison.

10. 1898

I have had the old well, on the track leading from Styant's Bottom to Crown Point, cleaned out. It presents interesting features, and is, in fact, a creation, as no one knew before of the steps or rude masonry. The Parish Council cannot act : before they can take in hand such

wells as those just above us ¹ and in Rectory Lane, they have to ask the District Council. The old saying holds good, 'No form of government is so good as despotic, provided you have a good despot'. For this purpose I am the despot.

There is a steep bank. The bottom of the well is hard sand rock like that in the drip well at Styant's Hill, which I have also cleaned out.

The labour and expense of opening excavations on a considerable scale on the Plateau limited Harrison's activities in that direction, although, as appears from these pages, he dug into the ochreous drifts at various places. A certain fascination attached to finding relics of man in gravel on the very summit of the Chalk escarpment, in a position to which they must have drifted from the vanished heights that once extended over the Weald. Although Harrison had already found a few worked flints in such a position, the prospect of examining an excavation extending over several acres aroused his enthusiasm.

B. Harrison to W. J. Lewis Abbott.

1898

The Mid Kent Water Company are about to make a large reservoir near the summit of the Chalk hill at Terry's Lodge. Won't I be on the spot !

The persons referred to in the following anecdote had better remain anonymous.

B. Harrison to E. Harrison.

1898

Mr. X.'s man, B., found a beautiful implement last week and handed it to Mr. X., who is intensely proud of it, but did *not* stand treat.

His mate said to me last evening, 'Never no more, never no more. If we find them again, no showing him, but straight to you they come : our pockets will hold them'.

¹ On Bates' Hill, Ightham, near Harrison's house.

XXVIII

1899—AGED 61

IN the earliest days of this year Harrison heard of the finding of a large fossil bone on Little Trench Farm, near Tonbridge. The farm was situate on the Weald Clay, which, he wrote, 'is hardly to be traversed in rainy conditions', and, as the weather was very wet, he deferred a visit to the excavation where the bone was found. It was sent on to him, however, and he forwarded a sketch to the Natural History Museum, South Kensington, for identification.

E. T. Newton to B. Harrison.

7. 1. 1899

Many thanks for your letter and sketch of large bone. I do not think there can be any doubt as to this specimen having come from the Weald Clay, and I am almost sure it is a foot bone of a large dinosaurian reptile, probably iguanodon.

Professor H. G. Seeley wrote, on 19 January, 1899, 'Your bone is the first joint of the middle digit of the hind leg of an iguanodon, equal to *i. bernissartensis* in size'. The bone ultimately found a home in the museum at Maidstone.

The Maidstone museum authorities had, as long ago as 1893, expressed a wish to acquire the implements which Harrison had collected from the gravels of the Medway system (of which the Shode forms part),¹ but it was not until 1899 that the transfer took place. The collection purchased for the museum included all the palaeoliths from the Medway gravels, and also a representative series of eoliths, including No. 464,² the first eolith sent by Harrison to Prestwich.

¹ See page 187.

² See page 133.

B. Harrison to E. Harrison.

5. 2. 1899

Sir John Lubbock has sent me a nice volume on Switzerland,¹ a book to revel in. He promised it two years since, but did not then send it. I am glad he did not do so at that time, as several points in my own area have been worked out independently. Had I seen his book first it would have saved me much thought, but the work would not have been mine own.

B. Harrison to E. Harrison.

22. 3. 1899

I have taken advantage of the sunny days to put everything in the museum ship-shape. In going through the whole collection, I lighted on a splendid lot of evidence longbottled up. After I became acquainted with Mr. Worthington Smith in 1878, he from time to time sent me interesting trifles, which were duly marked and placed in a drawer. In going through this lot yesterday, I came upon some interesting rude specimens from Basuto Land. These are about as rude as can be, and are facsimiles of those now found in Bushmen's caves in Central Africa. They feature my rude implements.

Strange that Smith classes all my Plateau [eolithic] finds as cretins, make-beliefs, casuals, travesties—anything but human made. And yet, as long ago as 1880, he sent me those then-acknowledged stones, as if to encourage me to look for similar specimens. When I find them, he scouts them! I have written to him on the point and doubt not that a characteristic reply will be received.

It was.

Worthington G. Smith to B. Harrison. Dunstable, 23. 3. 1899

First, I must thank you for a newspaper you so kindly sent, and next for your welcome letter of this morning. I don't remember sending you the shells and flakes, but of course I did, as you say I did. I remember having some obsidian flakes from Mexico and stones from Africa. I think someone sent me a mixture of artificial and natural from Africa and New Zealand.

I don't remember all those adjectives, but no doubt they are in my style, and I daresay I could invent a few more, if required. I might dub a senseless stone a 'tory working man', but I am not vile enough to level the opprobrious term at you. I don't quite see what the New Zealand and other modern flakes have to do with high-level implements. I have great respect for some of your ochreous tools, and I get identical examples here. I also get those other works of the Evil One, but I do not bring them home. I cannot tell what I

¹ *The Scenery of Switzerland*, by Sir John Lubbock. 1898.

thought twenty years ago, but I hope the eternal virgin *Athene* has advanced me a little in that time. I don't always believe what I believed the day before, and I cannot promise to believe to-morrow what I believe to-day. In fact, I believe very little.

I have lately found a few palaeos., a few miles south from here. I find it rather a long pull there and back, with poking about in the clay. . . .

Now I hope you are quite well and blessed with a happy and peaceful mind, without pre-glacial nightmares, extinct volcanic mountains, and palaeolithic tailless apes.

Prior to 1899 Ightham depended on wells for its water supply, the wells in the village being sunk to the base of the Hythe beds, where the underlying Atherfield Clay held back the water. In that year the mains of the Mid Kent Water Company were carried through the village. The laying of the water mains involved the opening of shallow excavations which Harrison watched almost daily. A large excavation for a reservoir was also made, about two miles north of Ightham on the summit of the Chalk hill at Terry's Lodge.

The lower (eastern) end of Ightham village street stands on the Hythe beds, or a superficial layer of gravel brought down by the stream (the Busty or Shode) which passes through the place. The upper (western) end of the street is just above the Hythe beds, on the Sandgate beds, the junction between the Hythe and Sandgate beds being met with in a bank opposite Ightham Post Office.

B. Harrison to E. Harrison.

8. 4. 1899

There is not much news but water piping. The workmen are now in front of us, and the street is up with a vengeance. It is very interesting watching the unearthing of huge blocks of Oldbury stone, and it gives one a vivid idea of the rough and uneven state of our parish in the past. At [the Post Office] they came upon Kentish Rag, and it was a tough crust for the workmen to pierce, as the stone was of the hardest character. The flints ¹ could be traced as far as Vennell's.

A congress of the South Eastern Union of Scientific Societies was held at Rochester in the summer of 1899, and Harrison

¹ i.e. the flint drift of the stream.

departed from his usual habits so far as to attend the meeting and to read a short paper on his scientific work.¹ He set down in a letter his impressions of this meeting :

B. Harrison to E. Harrison.

26. 5. 1899

The Rochester meeting was a large one, and in every respect representative of the many societies of Kent and neighbouring counties. I was well received by a host : the President, Professor Boulger ; the President-elect, Mr. Whitaker ; Dean Hole, whom I was glad to meet ; and a large number of friends of long ago. I had a busy time, getting to Rochester, and unpacking and arranging the specimens. No sooner was this done than I was rushed on to the platform to read my paper. It was a success in that I pleased the audience, but I should have liked to do it again next day under calmer conditions.

As I was unable to hear the addresses in the afternoon, a congenial friend and I did the town, visiting in turn East Gate House, Restoration House, the monks' vineyard, the cathedral, the castle, etc. All this was a real treat to me, the more so as, having read *Edwin Drood*, every place therein mentioned seemed familiar.

We visited the far-famed Bull Hotel, inspecting the ball-room where Pickwick and his friends danced. We dined and disposed of a bottle of sauterne, and on emerging we both felt in a good humour.

It was a long day, but I returned home not in the least tired.

N.—5. 6. 1899. I met Sir John Lubbock and his daughter at Crown Point and took them to see the blocks of Oldbury stone at Ightham Knoll, and on to the rock shelters. We found and they took away plants of *corydalis claviculata*, which Sir John had never seen in England. To Mount Pleasant and home. After lunch we drove to the Chalk hill, finding *atropa belladonna* in flower. Inspected the reservoir excavation, and went on to the pebble beds at Knockmill. A very pleasant and profitable day. I reminded Sir John that it was twenty-eight years since he was last here—in August, 1871.

The publication of the biography of Sir Joseph Prestwich was an event that Harrison had looked forward to with great interest. He received a copy of the work in June, and found that considerable prominence had been given in the later chapters to the authenticity of the rude implements. He was

¹ 'Plateau Implements (Eoliths)—Results of Recent Research'. *Trans. S.E. Union Sc. Soc.* (1899), pp. 12-16.

gratified to find in the book a letter to Sir John Evans written only a few weeks before Prestwich's last illness, expressing his continued confidence that the views which he had advocated would ultimately prevail.

B. Harrison to E. Harrison.

6. 1899

The *Life and Letters of Prestwich* has come. The personal references are all that could be desired. I copy from a letter from Prestwich to Evans, dated 2 September, 1895 :

'I suppose you will be at Ipswich. I have written to Galton to express my regret. I hope you approve of my letter. It will put the matter to your followers to the test.¹ You will, I think and hope, have to give up that leadership unless you do not wish to be left without any disciples—at least, so I judge from Harrison's gains'.

Kennard came with some Gault fossils from the reservoir excavation. This means that the Gault was at one time tilted high enough and continued far enough to be caught up in the drift and left on the top of the Chalk before the existing features were outlined. Also, from the section, pieces of Oldbury stone from the Lower Greensand.

On 23 June Dr. E. B. Tylor² called on Harrison, and spent several hours with him among the eoliths and the Plateau gravels.

B. Harrison to E. Harrison.

5. 7. 1899

I have just completed a large sketch book containing 265 figures of flint implements. It has kept me hard at work since Dr. Tylor's visit. The book contains sketches of types of rude implements in series, which can be more readily grasped than sketches of individual specimens not so arranged.

Dr. Tylor, speaking to me of Mr. A. M. Bell, said, 'He is so sanguine'.

'Yes', I replied, 'he may well be sanguine, as he has taken ten years of study, and has made many expeditions to the Ash district and other parts of the Plateau, to work out Man's greater antiquity'.

Harrison's practice of sketching the implements which he acquired was instituted mainly in order to enable him to keep a

¹ The reference is to a challenge to the unbelievers in a letter published in the *Geological Magazine* for August, 1895.

² Afterwards Sir E. B. Tylor, Professor of Anthropology at the University of Oxford.

record of his finds, including stones which he gave away, but he afterwards made light water-colour drawings on large sheets of paper, of groups of eoliths of the same types, and when arranging a display of specimens he would place each stone on the corresponding sketch, so demonstrating very effectively the similarity in shape and working of large numbers of these tools. A good many 'doubters' were impressed by the evidence which he arranged in this fashion.

B. Harrison to E. Harrison.

30. 7. 1899

Sir John Lubbock on Wednesday gave a lecture to the Kent Archaeological Society at Holwood Camp. He referred to the Roman road from Holwood to the next camp of importance, Oldbury near Ightham.

I obtained a really beautiful old palaeolith yesterday from the Court Lodge drift bed : one to be proud of, a genuine old patriarch, deep ochreous and worn.

Sanger's circus comes to Sevenoaks on 21 August. I am hopeful of being able to go. I have not been to a circus since about 1856.

B. Harrison to E. Harrison.

7. 1899

I walked to Ash on Sunday, and my way, as usual, was by pastures. Alas, there was hardly a scrap of green to be seen.

A farmer is cutting off the hedge shoots to give to his sheep. I hope the mutton will not be as tough as the feed.

I was able to walk dry shod over the ponds, and to examine the sections. This I did in 1893, but the drought is even worse now. Fortunately, it set in after the [grass] crops were secured ; there is no lack of hay.

The beds were too dry to be well seen, but on Ash church bed (north) I lighted on a nice little palaeolith, and some worked split pebbles.

Harrison was very susceptible to what he called 'weather conditions'. Cold, easterly winds 'shrivelled him up' ; hot, dusty roads he disliked ; but a balmy air, or a fresh westerly breeze after rain, was as agreeable to him as it was to the vegetation, and he rejoiced with all nature in such conditions. The drought to which he referred in the above letter seems to have broken shortly after the letter was written, and on August bank holiday he started for Ash in the very best of spirits.

B. Harrison to E. Harrison.

7. 8. 1899

Yesterday, feeling that I needed exercise, I determined to walk to Ash, and started at seven o'clock. A heavy storm the night before had so refreshed nature that every blade of grass seemed to assert itself, and lifted its head as if to say, 'Don't you admire me with my face washed?' Partridges were trotting along the road with their troops of children, rabbits were coursing over the hills, plovers (said by the ancients to be old maids in bird form) were strutting about among the wheat shocks with crests erect, and seemed to say, 'Do not pass us by, we may be wall-flowers, but look at our plumage'. They would rise in a body uttering their plaintive cry, 'pee-wit, how sweet'. It was a Richard Jefferies kind of day: lots to see and admire, and I did it.

I walked up Exedown, to Stansted and Ash, and on to North Ash, where I expected to get a good haul of implements from my man Evans, but, alas, owing to the drought, he had found nothing. I asked to look at his waste heap, and here I disinterred some choice spoil, one a real beauty of the later palaeolithic type and finish.

I then called on old Mother Brown (x) at West Yoke, whom I had not seen for many years. I asked whether her husband had found anything.

'Yes, sir, he's got some, but I don't think they are any good'.

'Let me look'.

From a stock of stones fetched out of a disused saucepan I managed to find three-fourths of a beautiful palaeolith. This deep ochreous specimen cheered me, and I went on my way rejoicing. At the Crooked Billet my man Chapman had a bag full of old olds for me. One only I brought away: the rest are to follow in the baker's cart.

In the evening—to Seal, Kemsing, Heverham, and St. Clere. This was a fitting end to a long and pleasant day, and I felt like a man who has had a good holiday: no looking at life through jaundiced spectacles. To-day I hope to complete the cure by a turn at gardening.

At the end of August Harrison was informed that a Civil List pension had been awarded him.

B. Harrison to E. Harrison.

28. 8. 1899

I received on Thursday a letter from the Prime Minister's Secretary as follows:

'I am directed by Mr. Balfour to say that he has had much pleasure in recommending your name to the Queen for the grant of a Civil

List pension of £26 a year in consideration of your researches on the subject of prehistoric flint implements, and that Her Majesty has been pleased to sanction the award'.

Shortly before the receipt of this letter Harrison was informed that the Royal Society had also honoured him by purchasing for him an annuity. He greatly valued this double recognition of his archaeological labours. He was gratified, not merely or even principally for the financial benefit they brought him—although that was appreciated—but because the awards seemed to set the seal of approval of the State and of the most notable of learned societies upon his scientific work. He was aware that his friend and co-worker, A. M. Bell, had been instrumental in bringing to the notice of the authorities concerned the nature and value of his researches, and his gratitude took the form of sending him some implements from the Plateau :

B. Harrison to E. Harrison.

7. 1899

Mr. Bell writes that the Committee of the Royal Society have sanctioned the purchase of an annuity of £25 on my behalf. I made an expedition to the Plateau on Sunday to find something for him, and early yesterday morning I wrote him a letter and forwarded the spoil—some very interesting things. I am glad I did this before his letter came.

The dust storms of the past week have given me a good idea of aeolian denudation : the deposit on the window sill of my museum is something extraordinary.

Lady Prestwich lived for only about three years after her husband's death in 1896—long enough, fortunately, to enable her to write and to publish his biography. As has already been stated, Harrison supplied some of the material for this work from the letters in his possession and from his own notes, and he had followed the writing of the book with keen interest. The death of the authoress snapped another link with a memorable past.

B. Harrison to E. Harrison.

4. 9. 1899

I had a nice collection of Somaliland implements sent me yesterday by Mr. Seton Karr. I am very proud of them.

Poor Lady Prestwich. I shall miss her friendly, charming letters. Latterly she wrote by the hand of a friend, but the wording seemed to have been dictated.

The eoliths were again before the British Association in 1899, when the annual meeting was held at Dover. Professor Rupert Jones once more took charge of Harrison's exhibit, and in a letter written at the end of the year he dwelt on the value of the small specimens as evidence of the artificial character of the implements.

T. Rupert Jones to B. Harrison. 27. 12. 1899

It was the little 'brownies' that attracted specially the attention of some of the people at the meeting at Dover. These *small implements* could not have been made by the sea, rivers, or mud rushes, and the presence of one of them is enough for the good character of a heap of rough ones.

When Harrison was at the meeting of the South Eastern Union of Scientific Societies at Rochester, he made the acquaintance of F. J. Bennett, a member of the staff of the Geological Survey, who had recently retired, and had settled at Malling, between Ightham and Maidstone. He soon became greatly interested in the eolithic question, and Harrison was delighted to have as a near neighbour a trained geologist who was ready to co-operate with him in examining the Plateau gravels. The first opportunity for doing so arose in connexion with the excavation for a reservoir on the summit of the Plateau at Terry's Lodge (or Exedown) :

B. Harrison to E. Harrison. 10. 11. 1899

I have run the eolithic fox fairly to earth on Exedown, excavations at 750 feet, O.D., yielding a seam or bed of ochreous flint as at the pit [on Parsonage Farm, Ash]. There are some typical specimens. So many stones bear work that I hesitated to accept them until the more pronounced specimens were lighted on. I went off yesterday at 8.30, and got to the excavation just as the men reached them. I carefully examined the specimens and instructed the men, who are keenly on the look-out. I went up again at two o'clock, and happened to meet Mr. Bennett, a retired member of the Geological Survey. He went back with me to the excavation, and I was glad for him to be there.

B. Harrison to E. Harrison.

II. 1899

Thank you for the fossils.¹ I am glad to possess them, being interested in the Crag. On comparison, the fragment Abbott was so sweet on ² looks very like the spire of some such shell as yours.

On Friday I took train to Otford and walked back across the hills. The Wick patch was in good condition, so I went again yesterday, this time [with a companion]. Several notes were made, but I shall go again by myself some Sunday. I can go where the roads are dirty, taking my own course, following up the track and spending all the time I can in the field.

I must keep on now that I have begun. I was quite a boy again yesterday.

N.—25. 12. 1899. Rain in the night, roads and land very wet and dirty. Even the sandy fields near the Borough Green Roman finds are one mass of slush, the frost in the ground preventing the water from sinking away. This fact seems of especial interest, as a heavy rainfall following frost would accelerate sub-aerial denudation, even in absorbent sand.

¹ A box of Crag fossils from the neighbourhood of Ipswich.

² A fragment of a shell found in the drift at the excavation at Terry's Lodge.

XXIX

1900—AGED 62

THE peerage conferred on Sir John Lubbock at the new year, 1900, caused Harrison to rejoice—for an unusual reason :

B. Harrison to E. Harrison.

1. 1. 1900

I am very pleased to see Lubbock is to be made a peer, especially as now misunderstanding will be removed. When I spoke of Sir John, meaning Evans, my hearers frequently took his cautious expressions of opinion to be those of the more progressive Sir John Lubbock.

B. Harrison to E. Harrison.

18. 3. 1900

I am glad to hear of your visit to Ireland. Yesterday, St. Patrick's, I had enough shamrock sent me to provide for all. I sent the emblem of the day to a neighbour who bears an Irish name. It was a treat to witness his pleasure. One man brought me a nice little plant which I have placed in the rock work. I must contrive to cultivate it.

B. Harrison to W. J. Lewis Abbott.

25. 3. 1900

In traversing the high plain near St. Lawrence's church [Seal Chart] this morning, I could but observe and pocket specimens of the gravel, honeycombed by exposure, and weathered like pumice stone. It was fortunate, too, that I had it, to ward off a savage dog which attacked mine. To adapt Bret Harte's words, 'With a chunk of weathered chert I hit him in the abdomen'.

The animal little thought the staid old man, walking with his wife, like Darby and Joan, had a store of missiles in his pockets. He found I had not lost my skill in throwing.

Harrison's first experience of a ride in a motor car deserves to be recorded :

B. Harrison to E. Harrison.

4. 1900

Yesterday [a friend] came over in a motor car, accompanied by a coach. The latter was an experienced driver.

They offered us a ride. We were driven at an easy pace to Seal Chart, and back past Crown Point, continuing at railroad speed to Seven Wents. It was an experience.

B. Harrison to E. Harrison.

10. 5. 1900

Mr. F. J. Bennett was here yesterday, and on entering my room he saw the new geological map. He remarked that he had taken part in mapping this area.

Strange that we should become acquainted, and that the man who mapped the Clay with Flints no longer believes it to be as Whitaker described it. He said to me, 'Clay with Flints was at first described as Tertiary, and is now again viewed as such'.

It will be a gratification to me to see good old Rupert Jones here once more. Our first correspondence was in 1864 or 1865, hence he can give me a character for long service as a worker 'in the fertile field of ascertainable facts'.

Time brings its revenges :

B. Harrison to E. Harrison.

15. 5. 1900

When I selected twenty-five eoliths to send to the Royal Society soirée in 1895, Professor Prestwich wrote to say that I had been badly advised in the selection, that a leading geologist had written to him that, instead of small typical specimens, I had sent large clumsy ones, and that it was a lost opportunity.

Now I have reason to believe that Professor Rupert Jones was the geologist referred to, but on Thursday last, when here, he accepted every specimen. When I showed him the old misshapen one, he said, 'I remember this'.

'Yes', I replied, 'it was sent to the Royal Society soirée, and Lord Ducie was greatly interested in it'.

'And well he might be', he answered.

I did not reveal my secret, but it was my hour of triumph.

B. Harrison to E. Harrison.

22. 5. 1900

[A lady residing near Ightham] called yesterday and plunged into an animated discussion on things historical.

She had learned that Kingsdown church is dedicated to St. Edmund the king, and the name Kingsdown was therefore significant. Had I any record or information?

She next touched on Aldham and the fact that Richard I stayed there when on his way to the Crusades.

Then she spoke of a recent visit to Addington, its stone circle and fallen cromlech. This led me to mention Coldrum, and she was interested and said she must see it.

I was about to introduce an older phase, and spoke of watching the excavations made for water pipes along the Pilgrims' Road. She interrupted me by asking whether I had seen the wonderful missiles found below Labour-in-vain hill. She said that they were made of some metal, and from a rough sketch which she made, I gathered that they were some seven or eight inches in length, rounded, and more or less dumb-bell shaped.

I asked what metal they were made of. She could not tell. Was it tin? Probably.

I then told her of Elton's theory and of the evidence of the Pilgrims' Way being an old road used by the Celts in transporting tin ingots. She became enthusiastic, and I had to fetch out my notebooks and read to her Grant Allen's notes on the subject.

She said she had two specimens of the missiles. I asked whether I might see them.

'Certainly, I will send them to you'.

She departed, but in less than half an hour her carriage again drew up, and the precious relics were exposed to my gaze.

I at once said, 'These are not ingots of metal, but marcasite or iron pyrites'.

She was sceptical, and said, 'Feel the weight'.

I did so, and fetched some specimens which I had found in a similar position—the Lower Chalk—and had put away in a box. With a hammer I broke one of my specimens and disclosed the characteristic interior.

'Ah', she cried, 'but try mine'.

I again used the hammer and disclosed the same structure.

'Oh', she exclaimed, 'I am so sorry you have laid bare the truth, for it was such a pretty theory, and I had built on it when on my way home. It does seem a pity'.

However, she has St. Edmund the king, and Aldham and Richard I, and so can construct a mental picture of the procession onwards by Aldham to the port at Ebbsfleet.

Such is life.

B. Harrison to E. Harrison.

18. 7. 1900

I have received a copy of the *Times* containing the Civil List pensions of the year. Mine is stated to have been granted 'in consideration of his researches on the subject of prehistoric flint implements'.

It is pleasant to be grouped with Sims Reeves and Alfred Austin, the poet laureate.

The water supply of Harrison's house was of old pumped up from a well. The water, which had percolated through sixty or more feet of limestone rock, was pure, but in dry seasons, of which 1899 had been one, the supply tended to become precarious. Accordingly, when the water mains were laid through Ightham village, Harrison, like many of his neighbours, drew his supplies from the new source.

B. Harrison to E. Harrison.

19. 7. 1900

Yesterday, for the first time, I received a demand note for water rate. This was evidently too much for the poor old pump to bear. The well has been dry for a long time, but on trying the pump shortly after receiving the demand, we found the faithful old servant willing to supply us. Now I can have a refresher in the morning.

B. Harrison to E. Harrison.

22. 7. 1900

Yesterday a stranger called and enquired, 'Are you the owner of the curiosities we have heard about?'

'Yes'.

He then informed me that he and some friends had come over from Chatham, and would much like to see my implements.

'How many are you?'

'There are eight of us'.

'A natural history society?'

'No, the Rector and choir from a church'.

I like flourishing my chronological shillelagh before parsons, for they are educated men who grasp the position, although sometimes tied down by tradition. They came, and the Rector, an Irishman, was a genial soul. We all got on well.

B. Harrison to E. Harrison.

29. 7. 1900

I had Mr. Arthur Smith Woodward¹ and Professor Packard of the Museum of Brown University, Providence, Rhode Island, to

¹ Afterwards Sir Arthur Smith Woodward.

see me on Saturday. I met them in the afternoon and we were driven via the fissure and Basted gorge to Oldbury rock shelters. We came home to tea, and they examined some of my collection in the museum.

We drove afterwards to Terry's Lodge and thence to the railway station. Their train was twenty minutes late in arriving, and this gave us an opportunity for a creamy chat on the platform. Professor Packard knew the 'Autocrat',¹ and had heard him make some of his delightful after-dinner speeches.

As I have been at work since 4.30 a.m., and have written four letters, copied references, done two hours' gardening, had a long breakfast-table chat, and have now to finish a plate of implements which I am sketching for the Natural History Museum at South Kensington, pardon this hasty note.

B. Harrison to A. M. Bell.

8. 1900

When Mr. Smith Woodward and Professor A. S. Packard were here, as we were mounting Oldbury Hill I pointed out the features and said that Prestwich classified the gravels as (a) post-glacial loams, (b) glacial flint drift, and (c) pre-glacial Plateau drift. Mr. Smith Woodward added of the last, 'And probably Pliocene'.

I then asked if the deposit in which the Abbé Bourgeois found his rude implements had been determined—Pliocene or Miocene?

He said he could not say, but Professor Packard said, 'I have seen the supposed implements twice, and do not accept them'. A long explanation of their shape and features followed, but he was firm as to non-acceptance.

As he afterwards accepted all my exhibits, this discrimination was comforting to me.

The view that the eoliths were, as a class, older than the palaeoliths, found support in Dr. H. P. Blackmore. In a letter written in 1900 he summarized his reasons for this conclusion :

H. P. Blackmore to B. Harrison.

21. 8. 1900

The main points to be brought out, in my opinion, are :

- (1) the totally different character of the eolithic work—hacking at right angles rather than chipping ;
- (2) the definite forms of tools showing similarity of design or purpose from widely separate localities ;
- (3) the fairly uniform heights of deposits in which eoliths are found :

¹ i.e. Oliver Wendell Holmes.

differing greatly in age of deposit from the more recent river drift or palaeolithic gravels.

Sir John Evans's argument as to use is nothing ; we really do not know how the oval palaeolithic implements were used, but no one now doubts their human workmanship.

A vast number of tools would never have been made of a special pattern unless they were applied to a special and definite purpose.

Harrison would occasionally express in a letter some regret that he had never travelled beyond the home counties, or some admiration for a beautiful district that he had never seen, but only to conclude with the reflection that, after all, the charm of his own county was not easily to be surpassed. A letter of this character to Dr. Edward Liveing was, no doubt, responsible for the following reply :

Edward Liveing to B. Harrison. Ambleside, 28. 8. 1900

Yes, this is in many ways a very charming piece of country. . . . It has so many picturesque beauties peculiar to itself, so many grand hills in so small an area, and showing their whole height from almost sea level. For charm and variety in form and colouring of its rocks and vegetation, I know no hill country to rival it. One would think it should be pre-eminently an artist's country, though I doubt if this is so. Then, too, it has so many interesting associations with literary folk. . . .

For the geologist and mineralogist it is no less attractive. . . . Some of the desolate higher valleys look as if the glaciers had only left them yesterday, so numerous are the moraines, ice-planed rocks, and perched and other transported boulders they exhibit.

For all this, to reside in all the year round, to make my home in, I would not exchange it for Kent or Surrey on any consideration.

N.—2. 9. 1900. [One of the men whom Harrison had taught to search for implements] having stated that he had been assaulted at the foot of Exedown and robbed of stones which he had found at Fawkham, I informed the police constable, who asked me to go with him to the scene of the alleged assault. We found no traces of anything, and searched carefully up the old road as far as the Horse and Groom, where we learned from the landlord that he was seen elsewhere when the assault was said to have taken place. So ended the tale of deceit.

On reaching the inn we found a number of hop pickers' caravans. It seemed cruel to move them on, for they were so comfortably settled

—cooking, washing, and so on—but the constable insisted. It was amazing to see the cocks and hens run and jump into their respective boxes under the vans, as soon as they found that a move was to be made. As one woman remarked, 'They know as well as we do'.

I had an opportunity to take stock quietly of the various types of humanity, their handy methods of cooking, and the alacrity with which they harnessed and got off.

B. Harrison to E. Harrison.

28. 9. 1900

At last we have rain.

Yesterday I walked to Ash under the most enticing and favourable atmospheric conditions. I secured a grand palaeolith found on Rogers' land, and three from North Ash. I gave one minute to South Ash bed, finding eoliths, and took a stride across Bouts Hole Field, walking quickly parallel to the road : here two eoliths were lighted on.

I found all ponds dry, and the hill men put to sore straits for water. When from the appearance of the clouds, I predicted rain to-day, they looked upon me as a maniac. They seemed to have lost hope, as some rain here on Monday failed to reach Ash.

I am ordering a six-inch map covering the area to the south of Ash, and including the crest from Exedown to Otford gap. I think it needful that this area should be carefully observed and [the gravels] mapped. For instance, in the Maplescombe valley, at one place there lies a worn gravel containing eoliths. Close by, but at a lower level, occur the transitionals. I must make this area mine own.

B. Harrison to E. Harrison.

15. 10. 1900

A grand day at Ash. I started at seven, and walked via the Horse and Groom, Stansted, Longfield Valley, and Peas Hill, to Ash and North Ash, and home at 2.30. To church at Ash : the singing was very good, but I caught not a word of the rest of the service.

The finds—my own and from my men—were all that could be desired : rude implements, ancestral forms of ovates, palaeoliths, three of the most interesting character, one mesolithic, especially convincing, and neolithic celts in abundance.

Evans wrote to me yesterday, and finished his letter, 'Hoping that you keep well and still finding'. My finds to-day are so marvellously good that I am sending him the spoil to see.

I met the tenant of Maplescombe Farm. He galloped after me and caught me up as I was sketching the old church in ruins. He is as much interested as one of his way of thinking can be. I told him the history of his valley and its products, but he said, 'You go too much on imagination'. 'No', I answered, 'on solid facts'.

Sir John Evans to B. Harrison.

22. 10. 1900

I have had to be away from home every day the last week, or I would sooner have acknowledged the receipt of your parcel of flints, which I am now returning. They certainly form a good day's harvest and I find them interesting.

The pitted specimen is curious. I am not sure whether some of the pits are not due to the expansion of some particle exposed in the flint, but probably most of them are due to frost. A little water freezing in a fissure expands and enlarges the crack, and at last a bit of flint is dislodged.

The small, pointed implement seems, as you say, to have been fashioned from a flint already almost brought to the required form by the action of natural causes. The facets on the more convex face seem to have resulted from expansion within the original block of flint. I think that occasionally a particle of pyrites is the active agent, or a small fossil scale.

I wish you many more such days.

Amongst the ancient houses of Ightham is the George and Dragon inn, the picturesque front of which forms one side of the village square. A proposal to rebuild this old place in 1900 led to a vigorous local protest against the commission of such an act of vandalism. A petition was drawn up and presented to the brewers, and after a short period of excitement it was announced that the rebuilding scheme would not be proceeded with. Harrison took part in circulating and obtaining signatures for the petition, and none was more pleased than he when it was found to have achieved its object.

B. Harrison to E. Harrison.

18. 10. 1900

The George and Dragon is said to date from 1515, and to have been the home of the Earl of Stafford. Now, as good Queen Bess made a tour through Kent, and on two successive days passed through Ightham—the first when on her way from Knole to Birling Place, and the second when returning from Birling to Tonbridge—there is reason to suppose she may have called at the old house.

Three copies of the petition to the brewers are being circulated. One of them is in my hands, and I have placed a notice in my window as to Queen Bess and also an adapted quotation from *Sartor Resartus*: 'Towns also and country villages, especially the ancient, I failed not to look upon with interest. How beautiful to see thereby, as through

a long vista, into the remote Time—to have, as it were, an actual section of the early past brought safe into the present and set before your eyes. There in that old inn was a live ember of fire put down, say nearly four hundred years ago, there burning, more or less triumphantly, with such fuel as the region yielded ; it has burnt and still burns, and thou thyself seest the very smoke thereof’.

This quotation won one signature. A stranger who called on me would not at first sight sign the petition, but, after reading the extract, he returned to say that he wished to do so.

A. M. Bell to B. Harrison.

7. 11. 1900

I called at the Cromwell Road museum on Monday and was glad to find the eoliths left by Professor Prestwich on show. They are in the post of honour, as the oldest works of man. I think it said that there were sceptics, *but there they were, in the post of honour.*

Now this is a great step in advance.

It has already been mentioned that Harrison frequently finished an address to a natural history society or other visitors to his museum by reciting one of two sets of verses. *That Chocolate Stone* has been printed in an earlier chapter ; *Eolithic Philosophy* is quoted in the following letter :

B. Harrison to W. J. Lewis Abbott.

16. 12. 1900

I think I sent you a copy of my son’s verses on *Eolithic Philosophy*. He wrote them as part of a letter to me, in answer to some sentences quoted from Sir John Evans’s letters.

EOLITHIC PHILOSOPHY.

(Suggested by a report of the meeting of the South Eastern Union of Scientific Societies at Rochester, in May, 1899.)

‘Has the absolute uselessness of such flints as tools never struck you ? . . . It requires some imagination to picture a people with special appliances for rubbing the feet, but none for the ordinary purposes of life’.—Extracts from letters, Sir John Evans to B. Harrison.

In the very early ages, long before the time of sages,

*When the Weald was in its infancy beneath a mountain range,
A man of Kent he sat O, on a rock upon the Plateau,
And chipped a flint on one side, or the other for a change.*

*As he sat there chipping neatly, he soliloquised discreetly,
On the present, past, and future in a philosophic way ;*

*A chip, then a soliloquy in primitive tranquility,
In prehistoric language this is what he had to say :*

*'Though this life is fairly pleasant, very pleasant just at present,
It is not devoid of drawbacks as you'll readily agree,
For an eolithic scraper, 'gainst a mammoth or a tapir,
Is inferior to shelter in the branches of a tree.*

*'If your mid-day nap you're taking, when your weary limbs are aching,
And a mastodon approaches snorting out a how d'you do,
How you wish that you were thinner lest he snap you up for dinner—
That the beast is graminivorous is quite unknown to you.*

*'Then you've neither dish nor platter, or a tailor or a hatter,
And your blunted flinty weapon can be scarcely called a knife ;
You know naught at all of science, and you haven't an appliance
For any of the ordinary purposes of life.*

*'Still, when sunny spring is coming and pre-glacial bees are humming,
When your eolithic fancy lightly turns to thoughts of love,
Ere you go to woo a lady in her bower green and shady,
You may titivate a little though you've neither cuff nor glove.*

*'Though a shoe-brush may be lacking, though there isn't any blacking,
You may find upon the hillside near a substitute complete,
You select a well-worn eo, then, starting from the knee-O,
You spend a useful twenty minutes rubbing up your feet.*

*'When the world is aeons older, when the weather has grown colder,
When the ages on the ages in succession have rolled down,
Will some congress scientific, in the days post-neolithic,
Discuss our early customs in a Kentish country town ?*

*'On examining our tools, will they brand us all as fools,
Saying, "Lo, of clumsy weapons these are clumsiest by far",
When their object is in question, will one offer the suggestion,
"Have you never thought how absolutely useless these things are ?"*

*'Will they set them out in cases in those dry and musty places
Where the relics of antiquity 'tis usual to display,
Labelled, "Body stones, examples, and of other types some samples
That might be used for anything, though what we cannot say".*

*'As they argue thus for ever, and agree upon them never,
Will they find that peace and concord come in answer to their call,
Or is science a delusion and my own a sound conclusion
That an eolithic life is one too long for after all ?'*

XXX

1901—AGED 63

AT the opening of the new century Harrison was sixty-three years of age. He was an active man, showing no outward signs of diminished vigour, and able to explore the Plateau as energetically as of old, but his work, during the remaining twenty years of his life was principally work of verification rather than of fresh discoveries. He opened new excavations in one or other of the different patches of ochreous drift, he found eoliths in all of them, and palaeoliths in some, but not in certain drifts which he thought were the oldest drifts. He accordingly maintained his view of the relative ages of eoliths and palaeoliths, to which question many references occur in his notes.

B. Harrison to E. Harrison.

6. 1. 1901

I had a delicious scamper yesterday : starting at nine, home at two. *Cold* but bracing. Every field being like iron, I could take straight cuts in all directions, hence I surveyed palaeolithic positions from fresh points, and so obtained a grasp of what was uncertain before.

B. Harrison to E. Harrison.

13. 1. 1901

I wrote to Sir John Evans a letter giving him details of recent work, my search and observations being confined to the summit levels, and finding there, during the past ten years, only eoliths and no palaeoliths. I copy his reply :

‘Many thanks for so kindly sending me the fruits of the new century. May you live well into it, and still be able to carry on active research. . . . We are just off to Egypt and cross the Channel this evening. . . . I have no time, therefore, to enter into eolithic questions, beyond saying that the last ten years have not brought much change in my views on that particular subject’.

Old Bingo killed the tortoise-shell kitten on Friday, so the order has been given for his execution.

Bingo had an uncertain temper and died unlamented. He was the second dog of the same name. The first Bingo, so called after the Bingo of F. Anstey's story, *The Black Poodle*, was a mongrel terrier, but a favourite dog, that died in 1896. Bingo II had been acquired because he resembled his predecessor in appearance. He disliked all cats intensely, and would take a kitten in his jaws and crush it. When he treated a pet tortoise-shell kitten in this way—'right dar', as Uncle Remus would have said, 'was whar he broke his merlasses jug'.

B. Harrison to E. Harrison.

10. 5. 1901

Professor A. S. Packard wrote to me last week from America, saying how much he enjoyed the afternoon spent with Dr. Smith Woodward and myself last summer.

A stranger called to enquire as to the distance to the Mote. He and two friends had walked from Kingsdown, believing the house to be close to Ightham. Finding it was too far for them—one was an elderly man—they decided to return, and I asked them in to take a rest. They did so, and on my learning that one of them had come to arrange for a visit to Ightham Mote by a literary and scientific society, we got into a general chat on the Mote and other subjects, and after a time we drifted from history to archaeology. This led to a visit to my den, where I found that one of my visitors who had lived in Boston, knew Professor Packard. He had also known Oliver Wendell Holmes and Longfellow.

I shall have to receive the literary and scientific people.

[A friend] writes, 'We should like to come down on Sunday, if convenient, and would bring a distinguished friend with us, Mr. Keir Hardie, M.P. I am quite sure you will enjoy meeting him; he is a most interesting man'.

Although taking no part in political controversy, Harrison followed the course of current legislation, and he was interested to make the acquaintance of so prominent a parliamentarian as Mr. Keir Hardie. Expecting, perhaps, to meet a man of an aggressive type, he was pleased to find that, whatever his political reputation might be, he was a very likeable man.

B. Harrison to E. Harrison.

16. 5. 1901

Mr. Keir Hardie came yesterday, and I found him a very nice man—one with whom I should like to take a long walk and keep on chatting.

He is not a firebrand, quite the reverse, and has a nice, quiet manner. His soft felt hat, blue striped shirt, and neat little check tie become him admirably.

Our programme was a rapid drive from the station, lunch, and then a leisurely walk to Heron Shaw to see the blue-bells and hear the nightingale. Thence we walked on to Oldbury, via the ramparts and the rock shelters.

After dinner he sang to us very nicely.

He only received a dame school education and was at work early as a miner. At sixteen he could not write, but he determined to educate himself, and he learned to write, and also shorthand. There was an agitation among the miners, and he attended his first political meeting, his object being to practise shorthand. His mates were surprised, and pressed him to be local secretary of their society. He consented, but next day when he went to work, he, his father, and brothers were handed their wages and all were dismissed.

J. Keir Hardie to B. Harrison.

Locknorris, Old Cumnock, 31. 5. 1901

I often look back with pleasure to the day spent in your company at Ightham.

I am certain that all round here, where I live, you would be able to trace many remains of primitive man which go unnoticed by the uninitiated eye. I have always had leanings towards this field of study, but my life has been cast in a sphere which does not readily lend itself to the calm, philosophic cast of mind which is such an essential to success. However, I can none the less feel a sympathetic interest in what you do, and rejoice with you in your success.

A second visit to Ightham took place almost immediately :

B. Harrison to E. Harrison.

30. 6. 1901

Mr. Keir Hardie is here with a friend. They walked from Otford along the crest to Exedown old road. It is not unlikely that a chatty article may appear in his paper, *The Labour Leader*, on this walk, as one of a series of walks round London.

B. Harrison to E. Harrison.

3. 12. 1901

I am pacing the 600 foot spread of gravel on Oldbury Hill, above Seven Wents. I have recently acquired a fine, ochreous, pointed palaeolith from the 500 foot level, on the dip slope to the north. I have also found a palaeolith on the patch above the house Beacons-

mount, at 650 feet, O.D.¹ This gravel is the same in composition as that above Seven Wents, and is the same age, dating back before the break in the hill at Seven Wents. I am anxious that this spread should yield implements. From my garden it is seen in profile. My other points in view are Terry's Lodge, Bay Shaw, Fane Hill, Ives at 400 feet, O.D., and the rock shelters and the 500 foot level.

B. Harrison to E. Harrison.

19. 12. 1901

In 1859 I went over to Trosley to take my coins for identification to the Rev. C. W. Shepherd. He was a great numismatist, and was very interested in my collection. Unfortunately as he was about to show me his own collection of coins, a caller drove up and I had to depart, though with a request that I would call again. Alas, I did not do so, but many years afterwards I called on Mr. Shepherd's son, who was interested to hear of my visit to his father.

The late Canon Isaac Taylor, author of *Words and Places*, was curate at Trosley from 1857 till 1861. He died about a month since, and last night I took his book to bed with me and read it at five this morning. He furnishes me with an idea :

'*Hoboken*, an Indian word meaning the smoke-pipe, was the name of a spot in New Jersey at which settlers met the Indian chiefs in council and smoked the pipe of peace while they formed a league of amity'.—I wonder whether Evans and I will ever meet on the eolithic question at Hoboken.

¹ i.e. the summit of Raspit Hill.

XXXI

1902—AGED 64

N.—12. 1. 1902. To Exedown. Found a large block of worn Oldbury stone on the top of Thirty Acres, a piece of this stone at the reservoir, and rude implements at the Chalk pit.

N.—26. 1. 1902. By train to Kemsing. Walked to Birches and through the wood to the ochreous patch : made some finds. On to Terry's Lodge and the reservoir. To the high-level section, found a lot of shells, *pupae*, etc. When examining the matrix we found a large number of quartz grains as if from decomposition of the Folkestone beds.

N.—1. 3. 1902. Very mild and sunny. A good day for cob-nut blossom, though not enough breeze [to scatter the pollen].

[A local grower] remarked, 'It wants a lot of women set on to tap the trees'. He also said, 'The runaway trees are bare of male blossom this year, but the closely cut trees are full'.

N.—2. 3. 1902. To Exedown chalk pit : a few shells, a good deal of quartz material, and Oldbury stone.

N.—4. 3. 1902. Paced the Crowslands patch. I covered the whole patch, working north and south and then east and west, inch by inch. Found an unmistakable eolith but not a trace of palaeoliths.

B. Harrison to A. M. Bell.

4. 4. 1902

Yesterday we walked to Tonbridge, and on our way back went to the site where the iguanodon bone was found.

There were two ponds in the clay. One pond was so muddy that two beasts were bemired and the tenant of the land had it cleaned out. This could only be done by digging a trench from the pond to a second pond at a lower level. The bone was found in the trench about nine feet deep.

The find is interesting and adds to my list of big forms found locally : *elephas* and rhinoceros in the Basted fissure, iguanodon,

and tooth of mastodon. The last I could not place exactly, as it was discovered by a friend in a cottage garden at Meopham.

N.—6. 1902. One evening in May a balloon descended in Crowson's plantation. [A youth] told me that the occupants said they went up 18,000 feet. This was so much in excess of what I had estimated by the apparent distance above the Oldbury sky-line that I interviewed the policeman, who had conversed with the aeronauts. He informed me that the elevation reached was 800,000 feet : over 150 miles ! I next communicated with the Rector who had entertained the balloonists, and he came to tell me that he had examined the instruments and found they registered 1800 feet.

N.—27. 6. 1902. To Heverham, St. Clere, and Terry's Lodge, returning along Exedown, past the huge heap of material prepared for the bonfire.¹ The partridges and their young were very interesting. The tiny birds, just hatched, were literally under my dog's nose, but the old birds lured the dog away, and the young ones quickly secreted themselves.

B. Harrison to E. Harrison.

9. 7. 1902

Keep on with your notes and diary, they are the best thing to keep your memory green. I am pleased to hear of my old friend the dwarf down meadow sweet. It is now nearly twenty years since I lighted on it near Birling Gap, but it lives in my memory.

Note the campanulas. There are some in the west² not belonging to our Germanic flora, and you will be in touch with the Iberian flora, certainly if you get nearer Bath. Clement Reid and I talked about it, and Geikie refers to the survival of Iberian plants in south-west Britain, so be on the look out.

Mr. Keir Hardie paid a further visit to Ightham in the summer of this year, and in a letter to Harrison, referred again to his archaeological leanings.

J. Keir Hardie to B. Harrison.

7. 1902

I am thinking about paying you and Ightham a visit one day next week, and will probably stay over-night. . . . I often think about you and your wonderful work and career, and wish that it were in my power to render you some aid. But my sphere of work takes me in quite another direction. My whole bent is towards the kind of re-

¹ i.e. in connection with the celebrations of the coronation of King Edward VII.

² The recipient was staying at Salisbury.

search in which you are engaged, but the claims of the living and the unborn leave me no option but to continue my work as an agitator.

The visit extended over three days. A considerable time was spent in the museum, where the eoliths received their due share of attention, and on each day Harrison provided his visitors with a plan for a walk to points of archaeological interest in the neighbourhood.

The eoliths continued to be the subject of discussion in scientific circles. At the meeting of the British Association in 1902, held in Belfast, they were referred to in a paper read by Mr. W. J. Knowles, who exhibited a series lent by Harrison for the purpose. There were champions on both sides, F. J. Bennett, who had the advantage of knowing the geological features of the Plateau, supporting vigorously the view that they had been worked by man, whilst Professor Boyd Dawkins took the opposite side. The British Museum authorities, owing either to lack of space or to a reluctance to exhibit stones that were the subject of controversy, had hitherto not placed the eoliths in their possession in the public galleries. In 1902, a rearrangement of the galleries was made and a *Guide to the Antiquities of the Stone Age* was published. The eoliths were now accorded a place, official caution appearing only in the inverted commas which enclosed the word 'eolithic' in the descriptive ticket around which the stones were grouped.

In October, 1902, Harrison made two fresh excavations on the Plateau, one of them on Parsonage Farm and the other at Terry's Lodge, from both of which he obtained eoliths. The latter excavation was near to the site of the reservoir, and his reason for digging afresh at this spot was explained in a letter in which he stated that the sections at the reservoir were inconvenient for search, owing to the large number of workmen employed and the desire to get the work completed quickly in order to provide a water supply for the locality. The excavation for the reservoir was, however, of great interest, as it had yielded (1) Roman remains from disturbed pockets in the surface drift, (2) Celtic remains, including pottery, (3)

southern drift, (4) a fragment of a Pliocene shell, (5) Gault fossils, (6) eoliths. He added that not a trace of palaeolithic man was discovered.

N.—24. 10. 1902. I found the Water Company's workmen laying pipes from the top of the Horse and Groom valley northwards past Plaxdale Green to the cottages. A variety of soil: some Tertiary sand was exposed, mottled clay and Clay with Flints by the cottages. No ochreous flints were observed, nor had the men seen any.

B. Harrison to W. J. Lewis Abbott.

26. 12. 1902

I wished to give a wedding present to a young friend who was about to be married. On the evening before the wedding-day I wished that someone would be fortunate enough to find an arrow-head that I might get it mounted as a brooch.

As we were closing business I saw a man approaching—one of my scouts. Seeing that he was fumbling at his pocket, I called out, 'What have you got for me?'

'A narrow-'ed', he replied.

I thanked my good fairy, for my wish had been granted.



AN EXCAVATION IN THE PLATEAU GRAVELS
(about 1903)

XXXII

1903—AGED 65

N.—30. 1. 1903. To Stonepits, and thence down the fields to the west. I noticed a considerable sprinkling of flint on the lower terraces. I found the Sevenoaks Water Company boring for water in a field just to the south-east of Kemsing railway station. They had pierced the Gault and just reached the Folkestone beds. The cutter worked as if it had met some hard substance; the foreman suggested it might be carstone, but it may be chert, which occurs in the top of the Folkestone beds.

The preservation in its natural state of Oldbury Hill was a project very near Harrison's heart, and had his means allowed him to do so he would have purchased the site in 1903, when the property changed hands.¹ The camp has been scheduled under the Ancient Monuments Protection Acts, but lovers of antiquity who know the spot would rejoice to hear that it had been vested in the National Trust and so made safe for ever.

B. Harrison to J. Scott Temple.

1. 3. 1903

Oldbury is now established, and important. It is not unlikely that the estate may be sold ere long, and on writing to the owner about another matter a short time since, I referred to the Celtic camp, its importance, and its occupation by the Romans. I also gave particulars of the use of the rock shelters as dwellings, and mentioned its greater interest on that account. I urged that in case of any sale the camp proper should be lotted separately. Such a place ought to be acquired, and kept for ever from the speculative builder.

¹ The hill is at present (1926) in some danger of being built upon, but it is understood that the owner intends to preserve all features that are of considerable archaeological interest.

N.—8. 3. 1903. Started at 8.30 to Terry's Lodge, examined the section at 755 feet, O.D. On to Crowslands and found some very impressive coliths. Back to the high-level drift [at Exedown], finding many flakes, some in a very interesting position at the base of the section by the smugglers' hole, overlying the chalk rubble composed of pebbles of chalk.

There are many good stories of geologists being mistaken for members of the fraternity of tramps, when in their working attire, or for harmless lunatics by reason of their strange habits. Harrison had one or two experiences of this class, and it was probably the relation of such an anecdote to Worthington Smith that drew from him the following letter :

Worthington G. Smith to B. Harrison. Dunstable, 17. 4. 1903

Some years ago Sir John Evans decided to visit Caddington, and I arranged to meet him at the Horse and Jockey inn, three miles from here and one from Caddington.

I took with me a small bag of high-level implements and stones and got to the inn about a quarter of an hour before the time appointed. As there were two large window-sills, one on each side of the inn door, I took out my stones and arranged them on the sills for Sir John to see.

The innkeeper came out and scowled at me ; he glared, he made me shrink and shrivel up with his looks. He went back into his inn swearing.

Soon he came out with a long, dirty rope. 'Here', said he, 'is this any good to you ?'

'No', I meekly replied, 'it is no good to me'.

'Oh', said he, 'I thought you wanted to hang yourself'.

Directly after this a fine open carriage and pair drove up with Sir John Evans. . . . Sir Thistleton Dyer . . . and some Oxford professor whose name I forget. They all, of course, shook hands with me, and Sir John arranged with the innkeeper for luncheon. The innkeeper now collapsed ; he seemed to turn suddenly into an Egyptian mummy.

Later on I returned with and joined the party at luncheon at the inn.

Harrison's habit of questioning persons with whom he came into contact about their places of abode, their travels and experiences occasionally produced interesting results.

B. Harrison to E. Harrison.

17. 6. 1903

[A friend] referred one day to Tennyson, whom he knew, and asked, 'Were you ever in touch with him?'

I replied, 'Yes, but only indirectly'.

'Oh, how was that?'

'Well, some years since, a butcher named Bridger carried on business at Ightham, and I had many chats with him. He was a character, and, for a country man, had seen much in his time. One day he mentioned that he once lived in the same village as Tennyson, and I asked him what he knew of our poet.

'He replied, "Why, before he built his house on Blackdown (Aldworth), he asked me if I knew the country round there, and I said I did, very well. He then told me that he was thinking of buying some land to build a house, and asked how he could get there, for it was fourteen miles away across country. I offered to drive him, and we went together. We had a splendid drive, but he did not talk very much except when we came to an extensive view. Then we stopped to look at it'.

"Do you know", continued Bridger, "that I once mistook him for the old Devil?"

"Mistook him for the Devil; why, how was that?"

"Well, in order to get the pick of the beasts at the market I used to leave home very early, before sunrise. One morning I was going along a straight drive across the heath with fir trees on both sides—just like the road across Seal Chart—and I saw a black figure a long distance ahead. Presently I approached and found the figure to be that of a man in a cloak wearing a big felt hat. On my getting close to him he said 'Good morning, Bridger'. 'Why, it's you, Mr. Tennyson', I answered, 'I really thought it was the old Devil', and he had such a good laugh".'

Tennyson in one of his poems writes,

Faint as a figure seen at early dawn

Down at the long end of an avenue.

His being mistaken for the Prince of Darkness may have supplied him with the thought.

B. Harrison to E. Harrison.

30. 7. 1903

I had an interesting interview on Friday. Two young lady cyclists came in, and asked whether I could tell them where they could get some cherries or other fruit. Alas, I could not. One of them was a splendid sort. She said, 'It is so tantalising to see the fruit as we ride along and yet to be unable to buy any'.

I replied, 'Yes, it is, and to me it is especially a matter for regret when the Garden of England behaves so unkindly to travellers who have come all the way from America'.

'You are right, but how did you know that?'

'Well, your voice reminded me very much of an American lady, the wife of Felix Morris, the actor, who stayed in this village some years since'.

'Oh, indeed. Did you know him? We have seen him on the stage many times'.

By a dexterous move I shifted the points, and spoke of our dimples of hills compared with the grand features of the Rocky Mountains. I found that one of my visitors had been to the Rockies with a State geologist, and as I had read Geikie's travels in the Yellowstone region, we got on capitally, having a most interesting chat.

On their deciding to start for Ightham Mote they found that one bicycle had been punctured, and I told them where they could get it repaired locally. While this was being done they came in to chat again, and went afterwards to the church. I next asked them upstairs to see my museum, and found them well versed in antiquarian matters.

Altogether a very pleasant time, and one to live in my memory.

An incident of the kind described in the preceding letter was not infrequent. When Harrison stated that 'two cyclists came in', he meant that they entered the open door of his shop, possibly expecting, in this instance, to buy the cherries for which they were longing, and finding themselves quickly engaged in conversation with a village trader of an uncommon type. It requires less courage in a passer-by to enter a shop to make an inquiry than to call at a private house on a stranger, and Harrison's experiences were the fuller and more interesting owing to the accessibility to the casual caller which circumstances imposed upon him during the greater part of his life. At one time he might be found gathering information from 'tinker, tailor, soldier, or sailor', at another he was entertaining in his shop a party of forty members of the Royal Academy of Arts, whose destination lay elsewhere, but who were driven to shelter by a sudden shower.

His position was not inaptly described in a letter which he received in 1904 :

F. C. J. Spurrell to B. Harrison.

16. 8. 1904

I was pleased to receive your most interesting letter concerning Mr. Edward Clodd's visit. You are in luck again. Indeed, you are a man to be envied.

What if you live in a quiet country village, and heap up no millions for a Chancellor of the Exchequer to tax. At least the village is one of the most delightful in Kent. You have the society of the most charming scientific people, and your name is a household word, and is even becoming known outside scientific circles. What could any man desire more ?

If you were rich, even in so moderate a way as my old friend Roach Smith, you would be to a certain extent not so easily accessible. Now, living like a Kentish Thoreau, you are resorted to by scores who wish to gain wisdom, and they do not fear a rebuff from an unsympathetic or a liveried lackey. . . .

B. Harrison to W. J. Lewis Abbott.

25. 9. 1903

I hear this morning that J. Allen Brown is dead. . . . Did I ever tell you the incident about his pipe ?

In 1887, after a day spent with him in going round the Shode area and the rock shelters, I accompanied him to Sevenoaks. On our way we crossed Oldbury Hill, descending the steep scarp near Seven Wents, where we sat down upon the heather and talked. On getting to the main road he said, 'I have lost my pipe', and we went into Crown Point inn to get a clay.

In 1894 Mr. Brownjohn came to see my collection, and stayed a few days in the village. Later on he came again, unexpectedly, saying that he had walked over from Sevenoaks.

'I have come by way of Oldbury Camp, and knowing you have a fondness for any relics from Oldbury, I have brought you something that I found there'.

He showed me a briar pipe, and I at once said, 'You found that beneath a solitary pine tree'—describing its position.

'Yes', he replied, 'I did'.

I then said, 'It is Allen Brown's. He left it there seven years ago'.

It was indeed the same pipe. A forest fire had burnt the heather and so disclosed it. It was undamaged. Mr. Brownjohn afterwards took it to Mr. Allen Brown, was most cordially received, and spent an interesting time in his museum.

A. M. Bell to B. Harrison.

Oxford, 25. 10. 1903

Professor Bonney was here yesterday, and for a couple of hours looked over my collection of eoliths. I don't think he accepted one of them.

On receipt of this information Harrison wrote to Professor Bonney to ascertain whether he was really in the state of unbelief attributed to him. His reply indicated that, while unconvinced, he had not closed his mind on the subject.

Rev. T. G. Bonney to B. Harrison.

9. 11. 1903

Mr. Bell . . . gave a fairly accurate diagnosis of my mental condition. None of the specimens at Oxford, or here in London, or what I have anywhere seen, including the contents of your box, carry conviction to my mind.

My special object in going to Oxford was to see some Tasmanian implements in Professor Tylor's collection. These I should not have hesitated to accept, except one or two on which I would not have rested anything. . . .

Of the so-called eoliths I can only say at present that while it is possible man may have used them, I see no proof that he has. But the sight of the Oxford specimens and of those you have sent me has been very valuable in bringing my ideas to a focus, and I now see along what lines to direct future investigation : it may lead me to be numbered among the converts or harden me in my unbelief—I shall carry it on, as far as is possible, with an open mind.

Would you allow me to retain those specimens now with me till the spring ? . . . I find there is nothing like an occasional stare during an odd half hour at anything which is causing a difficulty.

In regard to your work, permit me to say that, even if I remain among the unconverted, I am deeply sensible of its great value. You have discovered many things about Kentish man and the later geology of your district which are indisputable, and even if you fail in carrying his arrival quite as far back as you think, you will have done great service by stimulating research and sharpening the eyes of investigators.

N.—20. 11. 1903. To the British Museum. I went to the Stone Age gallery, up a narrow spiral staircase almost impossible for an aged man to mount. Found the eoliths, which are in the first place as regards classification but badly displayed, No. 57, for instance, being so placed that not an atom of the chipping could be seen, and a

chance visitor or even an interested student might go away saying, 'Harrison is a crank of the first magnitude to send such a specimen'.

N.—22. 11. 1903. To Crouch. Called on Billings and secured a fine sacrificial knife (?) with polished edge, and five arrowheads. A polished celt I hope to get next week; it was not his own so he could not sell it without consulting the finder.

Examined the plain in front of the beer-house: some stained chert, many Tertiary pebbles, some white flint, and one white flake.

B. Harrison to A. M. Bell.

1903

I have not had time ere this to reply to your inquiry with regard to the eolithic period.

Many years ago—about the time we were keen on the rude implements, but hesitating—I met with a passage in a paper by Grant Allen to the effect that in geology it is always dangerous to assert a negative, for, at the moment when you think you have proved your case, some beastly fossil or other is sure to turn up and refute the theory altogether.

The places which to me seem the most important for proving man's greater antiquity and his transition from an earlier to a later stage are such valleys as the decapitated Maplescombe valley at which I am now working.

XXXIII

1904—AGED 66

THERE is, amongst Harrison's notes, only an occasional reference to domestic matters. But the year 1904 is an exception. Mrs. Harrison's health had been failing for some considerable time, and towards the latter part of the summer of that year she was taken seriously ill. Although she afterwards made a partial recovery, and ultimately survived her husband by a few days, she was confined to her room for the last seventeen years of her life. His wife's illness gave Harrison much anxiety during its acute stage, and had a restrictive effect on his activities. He shortened some of his walks, as he did not feel able to remain away from home for lengthy periods, and after his retirement from business in 1905, he divided the time that he spent indoors between his museum and his wife's room.

*F. Chapman*¹ to *B. Harrison*.

2. 5. 1904

I am glad to know it was your brother who is so well known here as the discoverer of the *homalonotus harrisoni* of M'Coy. The fossil is one of our typical species, and will perpetuate the name of your brother in the early geological work he carried on in Victoria.

E. T. Newton to *B. Harrison*.

Geological Survey and Museum, London, 2. 7. 1904

Very many thanks for sending the Ightham fissure bone for me to see. One never knows what may turn up. I believe this to be the shin bone of a rhinoceros, but only a broken piece of it. It is very good of you to think of getting it for us but . . . we already have the genus represented.

I congratulate you on the interest that is being shown in the Plateau implements.

¹ Mr. Frederick Chapman, A.L.G., Hon. F.R.S.S.A., Palaeontologist to the National Museum, Melbourne.

The fissure at Basted continued to produce fossilized bones and other relics over a long series of years, the remains being unearthed by the workmen who were engaged in quarrying the Ragstone and whose operations ultimately destroyed the fissure itself.

The interest in the Plateau implements, to which Mr. Newton referred in his letter, was sufficient to cause Professor Ray Lankester, Director of the British Museum (Natural History), to take up the subject, and he wrote to Harrison in June, proposing to make a visit to Ightham in order to see the places where eoliths were to be found, 'and perhaps find some'. The latter was quite ready to accept the invitation to act as guide on such a quest.

Mr. Edward Clodd¹ expressed himself as convinced that the eoliths were made by man, and followed up his profession of faith by a visit to Ightham, which was duly recorded in Harrison's notes. Eleven years afterwards, when in a reminiscent mood, Harrison sent Mr. Clodd a copy of his note of 1904, which the latter took the opportunity of revising.

Edward Clodd to B. Harrison.

4. 8. 1904

I think that you know I am in agreement with those who recognize artificial, i.e. human agency in the shaping of the eoliths. . . . I must ask the publishers to let me insert a reference to the eoliths when they issue my new edition of my *Story of Primitive Man*.

Edward Clodd to B. Harrison.

4. 7. 1915

I am pleased to see that you keep well and cheery : old age has not staled you. And I am glad that you have sent me the enclosed [extract from your notebook] because I can make necessary corrections :

N.—9. 8. 1904.² Visit of Mr. Clodd. He arrived by train at 3.58. I met, with trap : home at 4.15. Two minutes in Town House hall, and a few minutes' inspection of implements. Tea, and an interesting chat.

To the pit at Terry's Lodge. A good deal of digging, and a man picking out the flints.

¹ Author of *The Childhood of the World*, etc.

² As corrected.

Potter came up and [without my observing him] threw among the spoil a decided white mesolith. This led to my pouncing on it, and enquiring of the man, 'Where did you find this?' The man hardly knew what to say. Mr. Clodd explained, 'Sir Mark Collet's steward put it there for you to find', and a good laugh followed.

We returned to the train via New House Farm. A long chat on the platform, as we had fifteen minutes to wait; on Huxley, Ray Lankester, Haddon, Grant Allen, and Evans.

A miracle play was alluded to when we were passing Yaldham Manor house. Mr. Clodd spoke of one on the flood. Mrs. Noah did not believe in it, and would not go into the ark—swearing by Mary,¹ as in another play Herod swears by Mahomet.

He told me an anecdote of Grant Allen. When the latter was in Jamaica, whither he had gone as Vice-Principal of a mixed college in Spanish Town, going to stay in the Blue Mountains, he lodged with a very intelligent mulatto, in whose bedroom were Spencer's *Sociology*, Darwin's *Origin of Species*, and a book of Clodd's. The last was read by Grant Allen with great interest, and he said to himself, 'If ever I go to England I must find the writer'. This led to their long friendship.

N.—2. 10. 1904. To pit at Terry's Lodge. A pond dug close by it has disclosed an immense lot of fresh-looking flints, a few ochreous stones in the shallow top drift, and Tertiaries beneath. To the field by Cooper's Wood, paced about an acre, finding many worked stones and one piece of chert.

B. Harrison to E. Harrison.

11. 10. 1904

Yesterday I walked to the Four Wents below Exedown. The water pipes were being laid from there to Fenpond. On passing by I saw many blocks of Oldbury Stone, in one place corresponding, in the east and west direction, with the [line of similar blocks] that I noted on the plain below Yaldham in 1881. As the trench for the pipes is

¹ The reference was, doubtless, to the Chester Cycle of Mystery Plays, dating from the thirteenth century. 'Mrs. Noah', however, swore 'by Christ', not by Mary:

Noye—Wyffe, in this vessel we shall be kept:

My children and thou, I would in ye lepte.

Noye's Wiffe—In fayth, Noye, I had as leffe thou slepte!

For all thy frynishe fare,

I will not doe after thy reade.

Noye—Good wyffe, doe nowe as I thee bydde.

Noye's Wiffe—Be Christe! not or I see more neede,

Though thou stand all the daye and stare.

cut in the grass off the road, the Oldbury stone cannot be the foundation of the road.

N.—5. 11. 1904. The workmen in front¹ were laying water pipes. One of them handed me a bone found in the section. By his speech I inferred that he came from the north. I asked him.

‘God knows’, was his answer. ‘I don’t. I’ve been about, but I’ve got no come from and no go’.

In the autumn of 1904 Harrison published a pamphlet on the eoliths, stating in a prefatory note that its publication was due mainly to the existence of a demand for a paper of an elementary character describing the eolithic implements and explaining in outline the theory advanced respecting their history. The pamphlet was well noticed in the press, and was the subject of several tributes from friends.

Worthington G. Smith to B. Harrison.

3. 11. 1904

I have received your little book and write a line of sincere thanks for it. I read it before breakfast, to the disgust of my wife, and hope to read it more carefully this evening.

It appears to me to present your case moderately and well ; and how much better the plate of stones is than some of the absolute and damaging atrocities I have seen in the publications of some local archaeological societies.

B. Harrison to E. Harrison.

4. 11. 1904

Bell has not yet acknowledged receipt of my paper.

I fancy that in placing the eoliths first in time I have taken a line that does not quite fit his views. I went for the facts as revealed by pick and spade, and by my unwearying efforts to prove my case.

B. Harrison to E. Harrison.

20. 11. 1904

I have sketched the series from the pond section [near Crowslands] brought by Martin² last evening. In one sense, owing to a rude palaeolith being there, it becomes stalemate, but the eoliths are worn, the palaeolith is not.

Therefore, Harrison implied, the eoliths rolled down from the vanished Wealden uplands, and may be older than the

¹ i.e. in front of Harrison’s house.

² Mr. P. A. B. Martin of Chipstead, Kent.

paleolith, which shows no signs of having travelled far in the ancient gravel.

G. Abbott to B. Harrison.

16. 12. 1904

I have just returned from Weymouth—a stay at a boarding house for six weeks.

Last Monday night . . . in the drawing room . . . suddenly one of the visitors said to me, did I know—(pause) the grocer—(name would not come). I said, 'Do you mean Mr. Harrison?' 'Yes, of course, yes, of Ightham'. The chief grocer in the world, therefore, must be Harrison.

Once upon a time she called to inquire her way (her sister with her) to somewhere, on their bikes. The result was they were taken into a museum for, I think she said, two hours!

She had not forgotten it at all—your kindness especially.¹

About the year 1904 Oldbury Hill changed hands, and a good deal of apprehension existed locally as to the attitude of the new owners respecting certain paths. For some time there was considerable excitement, but the questions in dispute were adjusted amicably. In one episode which occurred at this time Harrison played an amusing and quite unsought-for part. The following account of the incident is made up of a blend of a letter and a note:

N.—10. 6. 1904. The members of [a rambling club] visited Ightham at the week-end, to see the area and my implements. On Sunday I acted as pilot, and conducted them to various points of interest.

A rumour had got abroad that our party was bent on asserting a right of way over [a certain] path on Oldbury Hill. On reaching the top of the path, above the steps, in the course of our walk, we found the agent of the landowner, two police constables, and a concourse of people, some of whom had been waiting for several hours, assembled to witness the demolition of the fences.

The agent produced a letter from the owner stating that he had been informed that the Footpaths Preservation Society intended to come to assert a right of way which the owner denied. The agent was instructed to obtain police assistance.

¹ See letter of 30 July, 1903, *ante*, page 253, which may relate to the incident referred to.

Alas for the assembled multitude, we were not on mischief bent, and they were disappointed. I read the owner's letter aloud to my party, with suitable comments. Oldbury Camp has not rung with such laughter since the last feast on Mount Pleasant to celebrate the marriage of a chieftain's daughter, when everyone got more or less intoxicated with metheglin, or huckleberry wine.

The police constables, having orders to be on the spot until our arrival, were there from 10.30 till 4.45—no dinner, no beer, and as hot as could be.

I took the party to the rock shelters, where I read them an address and recited *Eolithic Philosophy*.¹

¹ See page 241.

XXXIV

1905—AGED 67

THE laying of water mains through the Ightham district gave Harrison many opportunities of examining shallow sections that were opened for that purpose, and his notes include numerous references to his observations of such openings in the gravels. Occasionally a relic belonging to a period later than the stone age turned up.

B. Harrison to E. Harrison.

4. 1. 1905

In making the trench for a water main from Fenpond to the Four Wents the workmen found a horseshoe deep down. I find it to be Roman. During its long sojourn in the gravel the iron has cemented to it all the flint stones near it, and it forms a very interesting relic.

N.—29. 1. 1905. To the Chalk pit at Exedown, where I found that in cutting the path [which runs across the face of the chalk pit] a soft sand very like that at Romney Street, containing broken tabular flint, had been exposed.

N.—2. 4. 1905. To Butt Field : found a partly formed ochreous implement. On to Great Field, noting the features and the hollow or possible valley from the Wilderness east to Brakey Mead and so to the Shode. Closely examined the upper hop garden : much ochreous flint. I found a few stones bearing eolithic work. To Dicky May's land—one ochreous flake.

N.—9. 4. 1905. From ten till one at Fane Hill and Brooms. Found no palaeoliths, but at Brooms many neolithic spalls and cores and chert drift. No stained drift as at Patch Grove (south).

N.—25. 6. 1905. To Sunny Banks : ironstone drift near James Bassett's house, gravel on top, close to Oldbury Place lawn. Weathered chert, Oldbury stone, ironstone and a few Tertiary pebbles. A flake of cave age, and a broken rock shelter specimen near the top.

N.—28. 6. 1905. In the evening to Hazeldene plantation. Searched well in the gravel, finding four palaeolithic flakes and the butt end of an implement.

A minor tragedy of the Plateau :

B. Harrison to E. Harrison.

4. 7. 1905

I shall try to get permission for another pit to be dug close to the summit level stone. The new steward unwittingly had mine filled in.

Here, like the man in Tennyson's poem, I shall 'stand on the heights of my life, with a glimpse of a height that was higher'.¹

Harrison often applied the line quoted to the crest of the Chalk hills, the 'height that was higher' being the vanished uplands of the elevated Weald.

N.—5. 11. 1905. Wet day. To Seal Chart and the Grove. Here I found a weak point in the fence and got over, finding traces of the continuation of the old road, and also possible earth-works. The name, the Grove, is suggestive.

The collection of flint implements formed by Harrison's old friend, J. B. Bevington of Sevenoaks, who died in 1892, was presented by his son, Colonel S. B. Bevington, to the museum at Rotherhithe Town Hall. Harrison was asked to arrange the collection for exhibition at its new home, and he made two or three journeys to London for that purpose. The first visit was described in the letter that follows :

B. Harrison to E. Harrison.

14. 11. 1905

You may like to hear of my adventures yesterday.

I had arranged to travel by the 8.30 train to the Elephant and Castle, but there was so much to be done before starting that I decided to take the later fast train. This was unfortunate, as the train rushed past the Elephant station and I was landed at St. Paul's. I made rapid tracks down Thames Street, took a bus from Tooley Street, and arrived at Rotherhithe Town Hall at 11.30.

I soon began to work in earnest, unpacking the implements and grouping them roughly in two very large but excellent cases.

There was a committee meeting of the Borough Council, and the members came to look at me, but I kept slogging away. At one

¹ *He stands on the heights of his life with a glimpse of a height that is higher.*
By an Evolutionist.

o'clock Colonel Bevington, the Chief Librarian, and many others came in, and there was an interesting scene. I don't suppose many of them knew much about palaeoliths or their teachings, but I had my say in reply to a number of pertinent questions.

Colonel Bevington made me go to lunch with him and we went off in a cab. I did justice to the food, and fortified myself with a good square meal. The Coburg pudding with brandy sauce was much enjoyed.

Then came the reading of the Reminiscences.¹ It was a proud moment for me, particularly as my old friend's life-like portrait hung immediately opposite.

My turn came, for many pointed questions were put to me, and then I got steam up and felt at home, and everything came pat—right off the reel, in fact.

The sitting was so long I could not stay to finish my work, so I may go again on Friday or Monday.

I went in my best tie—and bad was the best—intending to purchase a new one, but Tooley Street and its continuation Jamaica Road, contained only fish shops, eel-pie houses, and fag-end bacon shops. Not by any means an Oxford Street. However, it was an experience, and I saw lots of characters as portrayed by W. W. Jacobs.

Towards the end of the year 1905 Harrison, who was sixty-eight years of age, decided to give up business. He arranged to let his shop, while retaining the old house in which he had lived continuously since he was an infant. At the time of his retirement he was still full of energy, and he looked forward with almost boyish pleasure to his release from the cares and ties of business life, and to devoting his remaining years to scientific pursuits.

N.—7. 11. 1905. I determined to celebrate my coming release by a long walk, to test my walking powers. I started at 11.10 in most enjoyable conditions—a perfect autumn day. To Court Lodge, Two Chimney House pond, back to the pit, and Birches—home at five. Stood it well.

This walk is also described in the following letter, in which one or two incidents are included.

¹ Harrison had written out, by request, his recollections of James Buckingham Bevington.

B. Harrison to E. Harrison.

8. 11. 1905

My walk yesterday was to the pit, ponds, and the Terry's Lodge and Crowslands area. It was in every way worthy of such a day as that of my [approaching] release after being tied for fifty-five years.

I was cheered at the start, for I had gone to drop a letter in the pillar box, when a man approached me and began tugging at his pocket. He produced a beautiful little cave implement. So I went off in good and came home in especially high spirits, for I found a deep-red, flaked flint at Birches, striated on its bulbous face, also convincing Thenayites¹ from the pit earth, standing out in relief owing to recent rains.

The preparations for the transfer of his business now occupied Harrison's attention. A large number of weighty boxes of flint implements and other antiquities had been kept by him in his shop, and these treasures had to be removed, either to the room upstairs that served as his museum and den, or to an attic at the top of the house. He set vigorously to work to make the necessary changes, and to prepare the old shop and buildings for their new tenant.

B. Harrison to E. Harrison.

1. 12. 1905

I am getting the place well in hand: cellar white-washed and flap repaired, and shop finished except for a last coat of colour on the old beams.

The incomers can print, 'Ye old shoppe, established 1710'.

The garret has been cleared and is in first-rate, apple-pie order. This will be very useful as a handy room for work, and so enable me to keep the museum free from litter.

N.—3. 12. 1905. Inspected the rocks on the spur of Oldbury Hill by Middle Wood Gate, and from those now in position and the holes where recent removals have taken place, there seems ground for believing that these stones were roughly arranged in the form of an oval on the spur.

B. Harrison to W. J. Lewis Abbott.

12. 1905

If I live till Thursday I shall be sixty-eight and, after Christmas, free for walks.

N.—25. 12. 1905. Hard at work clearing and rearranging.

N.—26. 12. 1905. At work all day. Such a huge bonfire.

¹ i.e. small eoliths, resembling specimens found at Thenay.

N.—27. 12. 1905. Still at it, clearing loft and cellar.

N.—28. 12. 1905. To Rotherhithe, arranging the Bevington collection ; foggy and raining hard.

N.—29. 12. 1905. Hard at work gardening and putting in order.

N.—30. 12. 1905. Keen wind and frost. To Stone Street, Flanes Wood and Oakbank, returning by the site of the new reservoir.

N.—31. 12. 1905. Hard at work in shop, cleansing and polishing. Now all is ready for my successor.

So ended Harrison's business life. 'It will seem strange', he wrote, 'to be free after keeping behind the counter for nearly fifty-five years, but I have much to do in catching up arrears and verifying my work, and I hope to take advantage of my freedom to enjoy morning walks of observation'.

A letter written six months later indicates that he did not find time hanging heavy on his hands.

B. Harrison to W. J. Lewis Abbott.

7. 7. 1906

Yesterday I paid a visit to Mr. W. M. Newton at Dartford. For over fifty-four years I have never seen any other place than Ightham on a Saturday, and although I relinquished business last Christmas, my time has been so taken up with work and friends that, until yesterday, no Saturday outing has fallen to my lot.

It was something to see busy Dartford in the thick of Saturday trading, and the concourse of people from the country wending their way into the town.

XXXV

1906—AGED 68

A LIFE of leisure did not mean for a man of Harrison's temperament a life of idleness, and on giving up his business, he turned with zest to any occupation—major or minor—that seemed to merit his attention. Archaeological research, arranging, classifying, cataloguing, and sketching his implements, visits to old and new hunting grounds, gardening—even in mid-winter—reading, correspondence—all these claimed some part of his time, and from the date of his retirement until the end of his days he never for a moment felt that he had too little to do.

A letter written at the opening of this year to one of his oldest friends refers to the change in his life :

B. Harrison to Isaac Loveland.

I. I. 1906

I was about to sit down at my ease to work up arrears of correspondence, when your welcome card arrived. All letters during the past month have been put aside.

The work of transferring all my stones, and of getting painting and decorating done has been herculean.

This morning I took a long walk : now I begin a letter to you, and you literally have the first-fruits of my leisure. This, after fifty-five years of trading, is most welcome.

N.—I. I. 1906. This week hard at work gardening, hedge-cutting, and putting in order the lodge. Details not recorded here as this diary not purchased till later.

N.—22. I. 1906. To the Wrotham Old Pottery at Borough Green, brought away three vessels in fragments. Diary purchased.

B. Harrison to E. Harrison.

23. I. 1906

I hear of the finding of numerous flakes and two implements at Oldbury, but have not yet seen them. I hope to go there to-morrow,

and also to the Seal Chart reservoir, where they are excavating. I must instruct the workmen.

N.—24. 1. 1906. To conjuring entertainment at village hall. Very good.

Professor Ray Lankester, who expressed publicly his belief that the eoliths were artificial,¹ and in the Romanes lecture at Oxford, in 1905, declared that they carried 'the antiquity of man at least as far back beyond the palaeoliths as these are from the present day', desired to emphasize the value, as evidence of purpose, of similarity of shape of certain eoliths, and wrote to Harrison for specimens to illustrate a book that he had in course of preparation.² He was impressed by the large number of implements with a 'tooth-like prominence rendering the flint fit for use as a "borer"' and also by a group which he called trinacrial, from their resemblance in shape to the island of Sicily.

E. Ray Lankester to B. Harrison.

25. 1. 1906

I want to know if you can lend me, in order that I may photograph them, a number of eoliths of two definite shapes—the trinacrial and the borer. I want only these two shapes, and I want to get as many good, well marked ones together as I can.

I have about a dozen of the trinacrials here, and some eight or nine borers, well marked. But I want to increase the evidence by as many as possible.

... I want to show that these two definite shapes occur in such numbers that natural breakage is out of the question as the cause of them.

You can help me by lending me as many as you can of these two shapes—only clearly marked ones are of any use. I will photograph them and return them to you.

Harrison had always found photographs of eoliths disappointing, as the chipping, which is on the edges of the implements, is seldom clearly visible in a photograph. For this reason,

¹ 'The eoliths . . . in the human authorship of which I am inclined to believe, though I should be sorry to say the same of all the broken flints to which the name "eolith" has been applied'.—*Presidential Address to British Association*, 1906.

² *The Kingdom of Man*. 1907.

unbelievers were seldom brought to accept the true eolithic faith by an examination of photographs of specimens.

E. Ray Lankester to B. Harrison. 15. 4. [1906]

I quite agree with you as to the badness of my photographs, and all photographs of flint implements.

Good health and happiness to you—courageous and indomitable discoverer of pre-palaeolithic man.

N.—28. 1. 1906. A long search in Patch Grove hop garden—the upper parts being in corn and sticky I could not trespass on it. Only neoliths found, and one cave tool on Gibbet Field.

N.—14. 2. 1906. Ground covered with snow. Catching up arrears of correspondence, etc., beside a good fire.

N.—2. 4. 1906. To Tonbridge. Inspected the Court Rolls [of the manor of Ightham] from 10.30 till five: Court Rolls for 1660, 1721, 1798, and on to 1870 and 1898. Very interesting. Long Street Lane was so called in the 1721 record.

Long Street Lane is now known as Longstead Lane, but Harrison discerned in the older and more accurate name an indication of the Roman occupation of the Ightham district.

B. Harrison to E. Harrison. 29. 4. 1906

Last evening at four o'clock I was reading a report of the proceedings at His Majesty's Theatre, and wished I possessed a nice arrow-head to send to Miss Ellen Terry. At 6.30 old Billings appeared, having walked over from Crouch. From his pleased expression I felt sure he had good spoil.

He placed a bag full of flakes, scrapers, etc., on the table, but I could see no precious arrow-head. So I said, 'I want what you have in your pocket'.

He laughingly replied, 'Yes, sir, I've a good one. I only found it as I left off work at four o'clock, and I said to my wife, "I'll go over and take this to Mr. Harrison" '.

I need scarcely say it was a pleasure to me to write to Miss Terry a letter enclosing my tribute—a well made, white, barbed arrow-head—and telling her of my wish and its fulfilment.

B. Harrison to E. Harrison. 13. 8. 1906

I have been up to Butt Field, and have interviewed old Pettigrove, the travelling showman. By way of drawing him I took a cigar, which he handled most lovingly.

I found him in an armchair beside a cooking apparatus, with a large Irish terrier keeping him company, and the pigeons belonging to the tribe hovering over and occasionally swooping down to pick up food.

He told me of his long life as a public showman.

'First I played the cornet, but I lost too much wind at it. Then I played a flutina, and afterwards a banjo. I did a bit at comic songs, but I got on best with nigger songs, for I was early on the job.'

'What was your favourite song—I mean your best, the one that fetched the folk?'

'Well, sir, my real favourite was—

*Once I loved a pretty girl,
I loved her as my life,
She came from Louisiana,
And I made her my dear wife'.*

I at once exclaimed—

*'The buck-wheat cake was in her mouth,
The tear was in her eye,
Says I, "My dear, I'm from the South,
Susannah, don't you cry!"'*

This touched him, and he said, 'Only to think of your knowing my old song. Why, you must be about as old as I am, for that was a very early song'.

We conversed for some time, and at last he said, 'I want to sell out, sir, and settle down quiet and have a rest. Will you buy my concern? There is plenty of money in it. You shall have the first offer'.

Well, it is not yet definitely settled, but under consideration, subject to your approval. If you are in favour of the purchase, please prepare outline show-bills, 'Old Ben's galloping horses and switch-back, supplemented by his unique collection of pre-Adamite tools'.

N.—4. 10. 1906. To Coldrum and Trosley. There is a capping of drift east of the church, separated by denudation. A possible tumulus or moated mound lies on the road to Trosley in wood.

B. Harrison to E. Harrison.

31. 10. 1906

Bennett came in to-day and took dinner with me. There was a cauliflower which, in its dish, looked quite artistic.

He told me that he had a cousin, a clergyman, who had very curly hair, which looked strange after his hair became white.

This clergyman went one day to see an old farmer of the Lincolnshire type, who was very, very ill. As the clergyman knelt by the bedside to pray, the farmer caught sight of his hair, and, ill as he was, burst into roars of laughter, 'He, he, he ! Now I know why the boys call you Old Cauliflower !'

There were no prayers for the sick that day, but the farmer recovered.

In the course of preparation of the *Victoria History of the County of Kent*, Harrison was asked by the editor for information respecting Roman remains found in the neighbourhood of Ightham. He had a good deal of material amongst his notes—beginning with the discovery of Roman coins near to Ightham church in 1852—and it was a labour of love to go through his records and supply such information as he had.

XXXVI

1907—AGED 69

ONE of the principal obstacles to the general acceptance of the eoliths as artificial has always been the large numbers of such stones. This difficulty has been felt by all, and Harrison dealt with it in the pamphlet which he published in 1904. There were three schools of thought concerning this question : those who regarded all the eoliths as chipped by natural forces, those who claimed as artificial such large numbers of doubtful specimens as to discredit, in the eyes of cautious investigators, many stones that by themselves might have secured acceptance, and a middle school who, whilst recognizing the human work on certain implements, were yet not prepared to regard all the chipped stones as fashioned by man. Within the middle school there was room for many gradations, and Harrison, who belonged to it, drew his own line between the sheep and the goats.

B. Harrison to W. M. Newton.

1. 1. 1907

In his enthusiasm Rutot may have accepted and brought forward too much.

Certainly the first consignment sent by him to my friend Martin, several years ago, contained a group which I could not accept.

Lord Avebury to B. Harrison.

4. 1. 1907

There can be no doubt that many of your specimens are worked, and it is, of course, very interesting to find them on the Plateau.

I think, however, that they are the ruder tools used in palaeolithic times.

N.—6. 1. 1907. Walked round by the fissure. Noted an accumulation of tufa forming on the waterfall by the sluice gate of the upper mill pond at Basted.

N.—7. 1. 1907. 'To Sevenoaks and on to Martin's at Chipstead. Had over an hour's search on the waste heap,¹ but could find no 'eoliths'. Two bulbed flakes found. One or two stones, having been accidentally re-hit near the same place, bore some resemblance to some poor eoliths, but still with a difference.

N.—10. 1. 1907. Skeleton found in Stanley's quarry, Basted Lane, in the presence of the foreman. I went to the quarry but the workmen had left. I ascertained that no pottery had been found.

N.—11. 1. 1907. Noting that there was to be an occultation of Venus by the moon in the early morning, I arose at five. The day before had been overcast, with a promise of rain, but after a pelting storm in the night, the atmosphere was unusually clear, and so the sight was a grand one. The waning moon was almost as thin as a new moon and I do not remember seeing a moon before so near its end.

N.—19. 1. 1907. Frost and fog. To meet of foxhounds at the Mote. It was too foggy to draw Scatt's Wood, so the hunters trotted off to Riverhill, hoping to get above the mist.

On my return journey I searched Rose Wood and found many flakes.

N.—20. 1. 1907. To Seven Acres and Great Field, secured about sixty flakes. On returning home I found Fuller from Ash, with six palaeoliths from West Yoke and one fine polished celt.

The following extract relates to a footpath running from Fenpond to Wrotham. It was little used and had been obstructed by the tenant of the farm over which it passed. Gourlay, the tenant, was a Scottish farmer who settled at Ightham, and was a man for whom Harrison had a great liking.

N.—26. 1. 1907. I met Gourlay at Borough Green.

He asked, 'How are you?'

'Well, it is such a nice morning that I must not complain. But I did so last Wednesday when it was bitterly cold. I suppose it punished you a bit?'

'Naw', he replied, 'I enjoyed it'.

'Ah, possibly it reminded you of old Scotland'.

'Ay, well, yes it did'.

I then said, 'I am going to give you a pat on the back'.

'What for, noo?' he asked.

'Well, on passing Fenpond, I noticed that the barbed wire obstructing the footpath had been removed. I am glad you have taken it away'.

¹ i.e. the waste heap of a cement-making machine or mill.

'There is naw footpath'.

'Oh, yes, there is. I have known it to be a public path for more than fifty years. My father farmed the land till 1862'.

'Well, I say there is naw path, and I'll not open it but by authority ; and I'll tak' naw thought of old Benny Harrison's whims'.

I left him muttering, and went on my way enjoying the recollection of the encounter.

B. Harrison to E. Harrison.

31. 1. 1907

I have often wished to get up a parish show of anything that our people have about them in their homes. Most certainly it would be interesting, and would tend to bring to light some choice things that are now hidden away.

B. Harrison to E. Harrison.

20. 2. 1907

I walked to Ash yesterday. My trip was a marked success, marred only by a five mile walk home in a storm of the first magnitude. I got wet to the skin, but on changing felt as fit as a fiddle.

I looked over the waste heaps of my men, and over the flints they had selected, and came home with six most interesting palaeoliths—one, the deepest of browns and very worn, is a real speaker.

As my acquisitions were many, I left my bag full of neoliths and eoliths at Ash, to be sent on to me. Before the rain came on, the soft, though brisk breeze was most exhilarating, and as good as a sea blow.

My new leather bag, made for me by the saddler, can be carried rucksack fashion, and is a treat, as no shifting is necessary from one shoulder to the other on a long walk.

N.—2. 3. 1907. Heard of a gold coin having been found on Ives.

N.—3. 3. 1907. To Ightham Common to interview Ashby [the finder of the coin], who lent it to me to take an impression.

The coin proved to be Roman, belonging to the time of Trajan. Ives, the field on which it was found, is on the northern side of Oldbury Camp.

B. Harrison to W. J. Lewis Abbott.

4. 4. 1907

Your letter sent me, in Longfellow's words,

*Through unfrequented, unfamiliar fields
Fragrant with flowers and musical with song,
To follow, follow, sure to meet the sun,
And confident that what the future yields
Will be the right, unless myself be wrong.*

In other words, I determined to do a survey in the Wealden area. So I set out early to examine the Mote stream, the Shipborne brook, and the Dunks Green area of the Shode. In the first I traced the distribution of blocks of Oldbury stone—very worn—to the junction by Claygate.

The Shipborne brook, which starts from the base of Shingle Hill, revealed chert only, but when I was nearing Claygate, Wealden pebbles and blocks of sandstone from the Hastings beds came in evidence, and on searching a field south of New Farm (south of Plaxtol) and on the divide of the Shode, I found Wealden debris—thus confirming the observations of 1882. Topley, Evans, Prestwich and I went there in 1888.

Apart from my finds it was a very enjoyable walk beside these lowly stream beds.

B. Harrison to E. Harrison.

13. 5. 1907

Do you remember our walk to the cricket match at Gravesend in 1895,¹ when we left the Longfield valley, which turns at right angles from north to west. I remarked that I regarded this valley as having at one time gone straight to Northfleet, but as having been afterwards tapped by the Darent. I mentioned this to Prestwich, who agreed that the area was very interesting and deserved attention. One of my men has found at Longfield Hill one of the most interesting palaeoliths I have yet secured from the Plateau. It is the deepest brown in colour and worn.

Harrison regarded this palaeolith as having been transported in the high-level gravel in which it was deposited, probably before the change in the direction of the valley took place. On that account he assigned a high antiquity to the implement.

B. Harrison to W. J. Lewis Abbott.

Autumn, 1907

Yesterday I traversed the plain: Ash, West Yoke, Fawkham, Crooked Billet. A terrific storm forced me to take shelter for an hour, but this drove my men from the harvest fields, so I found all at home, and obtained truly magnificent spoil: about nine palaeoliths, splendid deep-brown flakes, strongly striated on the bulbous face—in fact a representative collection.

¹ Kent v. Gloucestershire, a match in which W. G. Grace made over 300 runs.

A. R. Wallace to B. Harrison.

8. 6. 1907

I suppose you know that a considerable number of eoliths have been found recently on the high gravels of the New Forest, near Fordingbridge, by Mr. Westlake and others. But the most important thing recently is the attack on the human origin of eoliths by the production, during some process of crushing flints on the Continent, of forms which are alleged to be *identical* with those of the eoliths in every detail. Opinion seems to be strongly divided, but I have seen no really careful judgement after close comparison. Have you seen them? Can you not get a set of them in exchange for yours, and give us a careful comparison? That would be worth while.

Harrison was alive to the challenge to the eoliths arising out of the alleged resemblances of battered mill-made specimens to rude implements. He visited several brickyards and cement works in order to examine the stones that had been struck by the revolving rakes of the machines, and came away convinced that the chipped stones so produced were distinguishable from the typical Kent eoliths.

N.—25. 7. 1907. Mr. W. E. Rolston, of the Solar Physics Observatory, called and stayed for four hours. He was about to visit Coldrum, but thought he would first come to see me, and next time bring a theodolite.

We talked of Oldbury Hill and its importance as a hill fortress, and I alluded to its natural features, suggesting that it was a place from which important bearings would be taken. I showed him the view from Oldbury, and the line of Raspit Hill, mentioning the ancient beacons and also the haze as seen from Oldbury like a distant view of the sea.

He explained the importance of salient points on natural features and was much interested when I pointed out to him [from Oldbury Hill] the site of Coldrum, Holly Hill, and the index stone. He referred to the [seasonal] range of sunrise and its relation to the dates of festivals.

He examined some implements, but my table was in such a state of confusion with notebooks, etc., to which we had referred, that I could not show them as I would, and must reserve a display for a future visit.

N.—12. 8. 1907. To the fissure in the afternoon. I found the quarry in excellent condition for examination. The dip is well seen from the northern end, where it is capped by cherty bands and covered with

a drift of broken chert. This does not occur on the south side except where let down into huge funnel-like depressions.

From a small fissure almost at the northern end I secured a lot of bones, apparently all belonging to one animal.

N.—24. 8. 1907. To Yaldham and on to Birches. The plot where the stained gravel lies was in a thick growth of buck-wheat, so I could not search there. On to Cotman's Ash. Refreshed at the Rising Sun, old Boustred and his wife being so pleased to see me.¹

Wick Farm spread of gravel I found in permanent pasture. On by East Hill, 574 feet, O.D. I ascertained that the well is 336 feet deep.

To Maplescombe spread—a splendid crop of oats, estimated at thirteen quarters per acre. Unfortunately the corn is still standing on the coveted area, but by search to the east I found some worked yellow-brown specimens. Hops coming out nicely, not a heavy crop, but looking very pretty.

N.—25. 8. 1907. Obtained an almost entire skeleton of, possibly, marmot from the lowest tier in the Basted fissure.

N.—26. 8. 1907. To the fissure at midday. Secured from a workman three bones and also a box of small fry from near the top.

E. T. Newton to B. Harrison.

13. 9. 1907

. . . The skeleton you sent me is that of the variable hare (*lepus variabilis*), but the little bones want a lot of looking out. There are bats and voles certainly, and presently I may be able to say something about species. . . .

Harrison was always at his best when conducting interested visitors round his district, and especially so when he had an opportunity to point out to a scientist of eminence the positions of the eolith-bearing gravels in relation to the story that they told. A visit of Lord Avebury is described in the following letter :

B. Harrison to E. Harrison.

1. 9. 1907

Yesterday was a great success. A wire at 9.30, 'Coming to-day'.

A close inspection was first made of palaeoliths, the small eoliths, and bones from the Basted fissure—all laid out in the sitting room. Then to the museum : eoliths and striated stones.

Next to Town House grounds to see a large block of Oldbury stone from the low-level, Shode gravel, and to Fenpond where we

¹ See the anecdote on page 122.

inspected a block weighing, say, fifteen hundredweight, and I pointed out its position on the Gault.

We then went to Exedown and the pit at the summit of the hill at 770 feet, O.D., where we made a long stay, finding some tiny eoliths. Lord Avebury advised that a grant from the British Association be applied for to continue the work of excavation, but, as I remarked, that means another year to wait and I shall then have topped seventy years.

To South Ash next, examining, on our way, the lie of the Oldhaven beds by the pond section and an excavation for a house close by Peckham Wood. We passed the South Ash patch of old gravel, and Lord Avebury was very curious as to the stained flints and their very local distribution.

After lunching in the field we made a further search and afterwards broke away reluctantly. . . . We went on to Ash Pound, down Peas Hill, and up the Stansted valley to Fairseat. Here the Oldhaven beds were shown, and we went on to the eolith-bearing terrace, where we made many finds of worked flints and pebbles.

When we were passing a pond on the way to Fairseat Lord Avebury suddenly checked the car, saying, 'I saw a boulder'.

'I am glad you saw it', I replied. 'It was a puzzle to me for many years, until I found there had been a windmill here, and this boulder had been used in connexion with the mill'.

At the Vigo we examined the huge excavations which existed when Prestwich made notes of the country in 1856. We stopped the car at 700 feet, O.D., and walked through the wood to the hilltop above Hognore. Here we had the world before us and I felt master of the situation. The whole of the country eastwards to the Stour promontory could be seen, the trumpet-shaped mouth of the Medway, Kits Coty House, Coldrum, the Pilgrims' Way, and the tracks leading from it to the spring heads: Trosley springs, Wrotham Water, Little Wrotham, Spring tavern—Saxonbury, Crowborough, the Forest Row ridge, the Dene Park outlier and Raspit Hill were all pointed out.

We went to Wrotham chalk pit and examined the pipes, then to the Gault section at Wrotham Old Pottery brickyard, where we found fossils. Next to the fissure at Basted where we spent a long time, and found two small boxes of tiny bones laid out for me by the workmen.

Home at five—a day of days.

N.—26. 10. 1907. A foggy morning after heavy rain. Paced the new water-pipe section from Terry's Lodge valley by the

footpath to the Horse and Groom inn: very large flints but none ochreous.

To Plaxdale Green, found one large eolith and an immense number of Tertiary pebbles.

To Parsonage Farm and on to South Ash, taking samples of the deposits from an excavation made for a tank—thirty-eight feet to the Chalk.

A very stiff and stodgy walk after last night's rain, but enjoyable, particularly on the outward journey, as the sun was shining and the trees in their autumn colours were very striking.

N.—2. 12. 1907. Our oldest inhabitant, Shad Webb, died. He was a mine of memories and I shall miss him, as he was the only man I could question when in any difficulty as to the past.

XXXVII

1908—AGED 70

HARRISON, to repeat his own expression, 'topped seventy' years of age in December, 1907, but he was not yet too old to enjoy a long walk over the snow-clad Plateau on a January morning :

N.—11. 1. 1908. Received from Lord Avebury a copy of Harmer's paper, *On the Origin of Canon-like Valleys*, so determined to start for Ash and re-picture the past by the argument.

At the 500 foot level I came upon a veritable snow-line, and from thence to Kettle's Corner found the ground covered, and moderate drifts at the gates by the dene hole. Visited Parsonage Farm patch at 520 feet, O.D., and found many eoliths, but it was too frosty to permit me to dislodge them.

Visited my men and obtained some implements : three of the Cissbury type from the chalk slope on the eastern side of the valley near Fawkham church.

To Buzzards, which I paced, noting the limits of the gravel. Found some stones bearing work.

Crossed to Rogers' outlying field, only a very few pieces of white flint and none ochreous.

Left my spoil at the Swan inn at Ash to be sent on to me, and walked home in an hour and three-quarters—untired.

At the end of February Harrison received an American visitor whom he was glad to welcome to Ightham, Dr. G. F. Wright, the author of *Man and the Glacial Period*, and other works on the ice age. In his note Harrison described Dr. Wright as 'an elderly gentleman, over seventy, but a good walker'—a description that he might also have applied to himself. The note continued :

N.—28. 2. 1908. We spent a good time in the museum, he being very keen on examining the Wealden model. He was desirous of seeing the gorge of the Shode, so I took him as far as Basted, the steep sides of the gorge impressing him. A snowstorm came on as we were having lunch, so we decided to walk instead of driving to Exedown, and as we walked we chatted on the boulders lying on the Gault, and the southern drift. He was much interested in the pit at the summit of the hill. We returned to the railway station by Cooper's Wood and Wrotham, having time to visit the Chalk pit at Wrotham, and to view the country from a hillside terrace.

A much travelled man. Had spent some years in Alaska studying the glaciers, was some time in Greenland, and had also visited Russia, Siberia, Mongolia, Manchuria, the Black Sea, and been all over America.

He remarked that green vegetables could not be grown in North America in winter owing to the cold, and that for the same reason there was no ivy on the trees.

He said that from observations made during the past few years in connexion with the excavation of a reservoir near his house, he became convinced that the post-glacial period was comparatively short, say 10,000 years.

He accepted the *striae* on my flints.

A very interesting companion.

A newspaper cutting pasted in a notebook records the death of Sir John Evans on 31 May, 1908, at the age of eighty-four. A note on the page opposite the cutting contains a list of the nine or ten meetings between him and Harrison, and also mentions the fact that their correspondence began in the year 1871. During the thirty-seven years between 1871 and 1908 Harrison kept Evans constantly informed of the progress of his researches and sent him for examination, as he found them, a great number of implements. The two archaeologists were at one respecting palaeolithic man, except that Harrison regarded the Plateau palaeoliths as pre-glacial, whilst Evans did not. Their views differed widely as regards the eoliths, and whilst Harrison sometimes thought from Evans's written observations about particular specimens that had been submitted to him, that he was 'moving' or 'coming round', he seems in fact to have maintained unaltered his original attitude of doubt as to the artificial character of the eoliths.

N.—6. 6. 1908. [Walked with a friend] to Knockmill. We found an eve-jar's nest, or rather its two eggs deposited in a tiny depression. The bird rose near us, and, as she feigned to be wounded, I kept still and, presently, found the eggs. As the ground was covered with pebbles, it was most difficult to see the eggs: the colouring was a case of excellent mimicry.

On the north side of the chancel of Ightham church there is an old window with diamond-shaped leaded panes. The family of a former Rector of Ightham proposed, in 1908, to place stained glass in this window, but the scheme was opposed on the ground that the existing glass was ancient glass, and the project was eventually abandoned.

In a matter of this kind Harrison's sympathies would generally be on the side of the antiquarians, but he found himself for once in the opposite camp. A note having appeared in the *Athenaeum* on what was described as 'proposed vandalism at Ightham, Kent', he took part in the correspondence that followed, in the course of which he stated (*a*) that the window had rectangular lights when he was a youth, and (*b*) that a local glazier who was still alive, had replaced the lights by diamond panes in the year 1857. Like Edie Ochiltree, he 'remembered the bigging o't', and so disposed effectively of the charge of vandalism.

B. Harrison to E. Harrison.

20. 7. 1908

F—— told me that he possessed a very big dog. It was so large he had to put it in a loose horse stall.

One day he purchased a monster dog kennel at a sale at a large house. The kennel almost filled a van, and an old son of the soil was called from his work to help unload it. Immediately on seeing it he exclaimed, 'Well, I'm dashed. If anybody comes along and sees that kennel, I'm d——d if he'll ever stop to see the dog'.

Kent has always been a home of cricket, and in the years when the county team won the championship excitement ran high, especially towards the end of the season. A note about the result of a game against Hants indicates that whilst interest was keen, the local intelligence system was sadly defective.

N.—8. 8. 1908. Kent won its game against Hampshire. It was a close match and we were all waiting at 7.30 for news. A cyclist passed and said to the Doctor, 'Kent has lost'. In a minute or so another passed and said, 'Kent has won'. The Platt cricket team on returning from Seal through Ightham said, 'Kent has lost by four wickets'. The Doctor went at once to his telephone and in a few minutes came back saying, 'Kent has won by twenty-five runs'.

There was great rejoicing, and the Platt men made the street ring with cheers.

Alas, this was not all, for across the original entry is written :

'Later news—Kent lost by one wicket, five minutes before time'.

Any reader who is still in doubt as to the result of this remarkable match is advised to refer to the pages of *Wisden*.

XXXVIII

1909—AGED 71

THE coming into operation of the Old Age Pensions Act of 1908 afforded material for the first note of the year.

N.—1. 1. 1909. To the post office at 9.30. Old Jack Skinner and his wife were just receiving their pensions. To a neighbour who witnessed the incident I remarked, 'I have known the old man and his wife for over sixty years. He has always been a good worker. He brought up, without receiving parish relief, a large family, numbering twenty-one in all'. This sent her off with a smile.

The second pensioner was a widower who had brought up his fourteen children—also without relief.

N.—17. 1. 1909. A very fine, frosty morning. I went over to see the trench near Comp House where Roman and British pottery has been found. Pieces of various vessels were found, in seven different places. The ground seems to have been trenched before, though not so deeply, and the vessels broken up.

N.—25. 1. 1909. To Oldbury. Walked down the stream from the Waterflash. From the hedge by the pond to the hedge separating Kiln Field from Gibbet Field, I found twenty large blocks of Oldbury stone in the stream bed and bank. In one place the stream turned at right angles by a large block.

Crossed the railway, and sighted a few blocks. At or near Romney's Wood they became numerous. I counted ninety-nine to the next hedge parting this field from the lower land.

When I was passing a herd of fifteen bullocks, a young bull came after me and I was obliged to run back. I escaped by getting over a barbed wire fence, but in doing so I tore a large gash in my leg.

Some blocks weigh at least a ton.

The streamlet by which the large blocks of Oldbury stone are to be found is far too small to be capable of transporting them, even in times of flood.

Harrison's 'missionary work' in the cause of his eoliths led him to send his friend Worthington Smith, from time to time, a selection of newly-found specimens, with a request for his opinion about them. The replies he received were characteristic of the writer, whilst Harrison's rejoinder usually took the form of a set of verses composed for the occasion. The thrust and parry took place as often as a subject of fresh correspondence arose.

Worthington G. Smith to B. Harrison.

4. 1909

. . . As for answering questions and giving opinions about *dubious subjects*, it is not always easy, and silence, philosophic doubt, or no settled convictions are better, especially in face of a high priest like you. It is like a Salvation Army captain full of zeal, coming here and asking me about Noah and his ark, Balaam and his ass, and Jonah and his whale. The better plan, according to my view, is to bolt and say nothing. I know you want to get me into a corner if you can. . . .

The verses I consider uncommonly good.

N.—14. 4. 1909. Drove with Martin to Titsey Hill. Here, as at Terry's Lodge field, near Cooper's Wood, there runs from east to west a very slight ridge, the soil on which is deeper in colour than elsewhere, and clings to the boots. I crossed and re-crossed this ridge in order to note the limits of the deeply-coloured soil, and its total absence off the strip.

A visit from Professor Max Verworn of Göttingen, who had come to England in connexion with the centenary of Charles Darwin's birth, gave Harrison great pleasure. Professor Verworn, who stated that he did not at first believe in eoliths or in any of the supposed evidence of Tertiary man, but had modified his views after personal investigation of the Miocene deposits of the Cantal, spent five days at Ightham. The fullest use was made of the time available, both in Harrison's museum and in the field.

N.—26. 6. 1909. To the railway station and met Professor Verworn. Walked home, and introduced him to Dr. Lorenz. We had a long time in the museum, as the motor-car which was to convey us to the Plateau went wrong. This was an opportunity for me. We started

at four o'clock and inspected the pit at 'Terry's Lodge and the trench.

N.—27. 6. 1909. A wet morning, just the thing to keep us contented indoors, so the Professor and I had a good time from 9.30 till 12.30. At 3 o'clock Martin came over and took him to Chipstead.

On the following day, 28 June, Professor Verworn found an interesting old palaeolith *in situ* in the Plateau gravel at the Vigo, an implement that from its position near the crest of the Chalk escarpment, and its rolled condition, could only have come from the vanished Wealden hills, before Holmesdale was carved out. Harrison could not have wished for a more striking discovery to have been made by his visitor in order to satisfy him of the great antiquity of man in Kent.

N.—29. 6. 1909. Professor Verworn, Dr. Lorenz and I to the pit. The Professor and I were hard at work in the excavation till one o'clock when we walked to Crowslands where we found several eoliths. Back to the pit, where we worked again till 4.30. Gave instructions for the pit to be filled in.

On 30 June, the last complete day of Professor Verworn's visit, two or three more hours were spent in the museum, and when his visitor departed on the following morning, Harrison had the satisfaction of feeling that the strenuous five days had been well spent.

Max Verworn to B. Harrison.

Göttingen, 25. 7. 1909

The days I spent [at Ightham] will always be a most pleasant remembrance to me. I am especially grateful to you that you made it possible for me to make the excavation on Terry's Lodge, and to visit the chief points of interest in the neighbourhood of Ightham. If up to then I had the slightest doubt of the artificial nature of the eoliths of Kent, my visit on the spot and your splendid collection would have quite converted me. . . .

Should you be going to the pit of Terry's Lodge, I should like to ask you to select some of the white cracked flint stones that, besides the eoliths, are to be found in the red clay. I should like to have pieces which lie split apart in the earth but fitting together, as I wish to show that the flint of the Plateau splits naturally in this way.

B. Harrison to W. J. Lewis Abbott.

7. 1909

In the course of the excursion of the Museums Association to Ightham Mote, I got into conversation with the curator of Hull museum, and asked casually whether he knew the Market Weighton district. He replied that he knew every inch of it. I told him that my son, when living in Leeds in 1897-1899, had visited Market Weighton and had described the town as situate, like Wrotham, under the Chalk escarpment. He went afterwards to Beverley (situate like Gravesend), and walked thence to Market Weighton up the dip slope, examining the area at the head of a long dry valley, and bringing back eoliths—ochreous, weathered, and worn.

This information interested him immensely, and on Saturday last the delegate from Worthing, who had called again on me, said, 'You have upset the Hull curator. He did nothing but talk about what you told him on our return journey. He said, "Here we have been covering and surveying every inch of our area without result, and you have found at our back door" '.

The Hull curator has since written asking for the loan of the Beverley specimens, in order that casts of them may be taken, but I think of letting them keep the originals. Their teaching power lies in Yorkshire. One specimen is like a flake bearing side work.

It seems to me that the road from Beverley to Market Weighton, like the London to Brighton road, follows a gap, and the Ouse has captured the head of the old valley.

B. Harrison to E. Harrison.

12. 8. 1909

The heat is excessive, eighty degrees. In order to show you to what a wretched state I have fallen, I may mention that a pit or shaft is being made close to the reservoir at Terry's Lodge,¹ and, much as I wished to go and take notes in order to test the deposits, so far I have shirked the work.

F. J. Bennett wrote yesterday, 'You say naught in your letter as to the section at the reservoir. Have you been up? This is most important'. I could but reply,

*Full many things I leave undone
At eighty in the shade,
I court the shadow, not the sun,
Though Bennett may upbraid.*

¹ A note records that this shaft was made for a soak-away for the reservoir during cleansing operations. The excavation was carried into the Chalk, which was reached at a depth of twenty feet. The diggers, however, were working partly in a pipe.

*I peg away the livelong day,
 Within my shady den,
 I work my best, then take a rest—
 This suits, yours truly, Ben.*

I got up early to reply to a letter from Lord Avebury. On looking out of the window I saw a figure lying actually in the bed of nettles opposite. Again and again I left my work to view him, until I feared he might be dead, so I rattled a tin box, and presently saw a slight movement.

Then I went down, and he said, 'I am dead tired and obliged to lie down anywhere'. He was a thick-set, stocky man, with a dome like Darwin's, and after I had given him some food he managed to make off on his long, lonely quest for work.

So now I shall not have to appear at an inquest as I feared, and be subject to a headline, 'Callous behaviour on a Sunday morning of a parishioner of Ightham, who does not go to church and yet shuts his eyes to the poor at his own gate'.

What an escape !

The publication of the December number of the *Cornhill Magazine* completed fifty years of its life. Harrison considered that the occasion called for a congratulatory note to the editor.

Leonard Huxley to B. Harrison.

29. 11. 1909

Your letter of yesterday's date is an agreeable reminder of the literary and personal interest which the *Cornhill* still has power to awaken. Your record is a rare one : there cannot be many subscribers to the magazine who have taken it in all the fifty years since its inception. The *Cornhill* salutes an ally of such long standing.

XXXIX

1910—AGED 72

THE first note of the year 1910 is a combination of archaeology and fox-hunting :

N.—1. 1. 1910. Started at 9.15 to the meet at Trosley Towers. Frost, then liquid mud. A good meet. Drew covert and found. The fox came past me as I was examining the gravel in the garden by the north lodge. Then a fine gallop past, along the terrace road. However, as the fox had a good start, the hounds could not pick up the scent, so all came back again. It was killed in the valley.

I examined Lovell's strip, and found chert, and some small worked stones. Paced the land to the south of the milestone planted with groups of trees, and found eolithic gravel to the west. Big holes exist in this field, connected with former brick yards.

N.—26. 1. 1910. Comet seen plainly in the west. Many people observed it and it was amusing to note their varying accounts of its length. Some said it was a yard long. One, stretching out his arms at full length, said, 'It was as wide as this'. One said it was as big as a plate.

I find that the diameter of the full moon is half a degree, so this gives a fair index as to the length of the tail, which would be, relatively, about two degrees and a half to three degrees.

N.—5. 2. 1910. The comet has not been seen since Sunday night. I went out on one very fine evening, but the zodiacal light was too strong, and after waiting some time, I thought it best to go in and not take a chill.

The folding of strata which produced the anticlinal east-to-west ridges across Kent and Sussex, and the south-to-north dip slope down which the ancient rivers ran, had often been assumed to be a simple fold, a view that led to the conception of a single

range of Wealden heights, covered by a continuous layer of Chalk, and, above it, Tertiary strata and drift. The researches of Mr. Lewis Abbott near Hastings indicated that the reconstruction of the ancient elevated Weald was a less simple problem than had commonly been supposed. The elucidation of the geological history of the denudation of the Weald is of course essential to the right understanding of questions relating to the age of the Plateau palaeoliths and the eoliths.

W. J. Lewis Abbott to B. Harrison.

8. 2. 1910

I am exceedingly busy . . . with our water question, which means restoring innumerable sections in all directions. What a new light it has thrown on our . . . Wealden anticline. No one has ever realized what the surface of any one of the formations is like. Not only have there been numerous waves (Crowborough not being the most important) in a more or less north and south direction, but what has surprised me is the east and west folds, hundreds of feet, sometimes. . .

Faults and thrust faults are everywhere. Inland, the 'Ashdowns' get so very much more like the 'Wadhurst' that it is impossible to tell which is which.

N.—19. 4. 1910. Received Verworn's flints from the Tertiary deposits at Aurillac. It was a time of elation, finding facsimiles of the Plateau specimens, for instance, an excellent borer with well-marked reverse chipping, and another, the double of some of mine.

B. Harrison to W. J. Lewis Abbott.

22. 5. 1910

On Sunday I walked from the foot of Hognore Hill up the steep scarp to the Vigo area, to Fairseat patch, Plot Farm, Stansted heights and Peckham Wood spread.

I was able to do a good deal of verification work in the same way as the pilot who, on being asked by a loquacious passenger whether he knew where all the shoals were, answered, 'My business, ma'am, is to know where they ain't'.

So, by walking leisurely up and across the deep Stansted valley, I could be sure of where the ochreous drift was not.

The discovery, near Ipswich, of worked flints under Crag deposits, by Mr. J. Reid Moir, marked a further stage in the unravelling of the history of primitive man in this country. The news reached Harrison in a letter from Dr. Frank Corner :

Frank Corner to B. Harrison.

10. 10. 1910

Mr. Moir, Ipswich, has found implements of *ancient* types, under 'glacial' and *Crag* deposits. Position and implements not open to doubt.

I have seen twenty feet of undisturbed Crag. . . . Pre-Crag man.

Harrison came quickly to the conclusion that the sub-Crag specimens were, in form and character, less primitive than the Kent eoliths, and more closely analogous to the implements that he regarded as representing the transition from the eolithic to the palaeolithic culture.

B. Harrison to E. Harrison.

20. 12. 1910

Sir Ray Lankester writes: 'I think the Suffolk flints extremely important, and if they were found hereafter in the Suffolk bone bed—below the Red and below the Coralline Crag—and if the specimens were as undeniably worked by man as some already obtained from positions not quite certainly *undisturbed*—then the age of the flint industry would be thrown back a good way. But not so *very far*, for no one knows the real age of your high-level Kentish gravels, and I would not be surprised if they were just after the Red Crag and before any Pleistocene was laid down elsewhere'.

This is comforting and agrees with my own thoughts.

XL

1911—AGED 73

LONG distance walks were now becoming almost a thing of the past, and although Harrison continued to visit the Plateau on foot, it was the gravel-beds near the crest of the hills rather than the more distant deposits at Ash that he usually examined. This gradual curtailment of his activities also resulted in there being fewer events of interest for him to record.

B. Harrison to E. Harrison.

1. 2. 1911

I went down the street to make a purchase, luckily, and saw a man among the top branches of the fine tree standing on the bank like a figure-head to the village, and a very long ladder and several other men.

I asked, 'Do you really mean to say that it is intended to cut down this tree?'

'Yes'.

I went to see the owner and remonstrated with him. I prevailed upon him to be content with judicious thinning out, and strongly advised him to do no further work but to take away the long ladder. This was done.

The appeal, 'Woodman, spare that tree!' was in this instance so successful that the tall sycamore still adorns the lower end of Ightham village street.

An excavation in the drift at Crowslands, which Harrison had opened, yielded eolithic implements but no palaeoliths, a fact to which he drew the attention of Lord Avebury, who accompanied him to the site in April. On the day following his visit Lord Avebury wrote as follows :

Lord Avebury to B. Harrison.

28. 4. 1911

I am satisfied that many, if not most of your eoliths are worked, though the numbers are staggering.

I am not satisfied, however, that palaeolithic implements are in all cases younger. In such a case negative evidence is not very conclusive.

The receipt at 6.45 a.m. of a parcel of sub-Crag implements from Mr. Reid Moir was an event too important to pass unrecorded.

B. Harrison to W. J. Lewis Abbott.

15. 5. 1911

Mr. Moir has sent on a consignment, which the postman left on the doorstep, calling out 'Parcel'.

To run downstairs in my night attire was the work of a moment, and, after cutting the string hurriedly, I sat on a sofa in a good morning light and proceeded to examine the contents of the parcel. I then dressed hastily, and taking the specimens to my den, put them under the ordeal of a hand lens. After a scrutiny I had no doubts in pronouncing that man was there.

N.—22. 6. 1911. I met, in the evening, a visitor from America. He was a native of Ivy Hatch, who left England forty-five years since. I had a long talk with him next day on old acquaintances, and he seemed to have everything photographed on his memory.

We spoke of Rose Wood and the trenches, which he had observed in his boyhood, when his father told him that several escaped prisoners took refuge there for several days.

He said to me, 'Were you ever at Tunbridge Wells on Good Friday?'

'Before I reply', I said, 'I want to know whether you are thinking of a lady from Marden'.

'Yes, she was my cousin, and you met her at Tunbridge Wells. A short time afterwards she came to see my mother, and she asked particularly after a Mr. Harrison'.

Strange how things are bottled up in one's memory, how he remembered the incident after forty-five years' absence, and how I was able to anticipate his line of thought. It was about 1862 that I walked to Tunbridge Wells on a Good Friday and met the lady. A fortnight later I saw her pass my house accompanied by a sister of my questioner—and this gave me the clue to his inquiry.

A note of 7 October records an expedition to Fairseat with a scientific visitor. 'We searched for an hour on the turnip patch terrace and made some finds'. Next day Harrison received a telegram saying that his visitor of the previous day had lost his

gold watch, and suggesting that it had been lost in the turnip field. He sent one of his scouts with his son to the field, and two days and a half were spent by them and by another workman in a vain search for the watch. Meanwhile, Harrison had arranged for handbills to be printed offering a reward to the finder.

N.—10. 10. 1911. The same workman went up to Fairseat to distribute the bills and to search the field to the west of the turnip field. He found, not the watch, but a fine, worn, ochreous palaeolith and three white flakes.

At night an old man brought in the watch, which he had found in the water-table of the road at Longpond, Borough Green, at six o'clock on the morning after it was lost. It was pleasing to note his face when he received the five pounds reward. He had been unable to work for twelve months and he remarked, 'This *will* be handy for me this winter'.

N.—13. 10. 1911. [Drove to Ash with a friend.] We put up the horse at the Swan inn and walked to West Yoke and across the field, caterwise, to the farm. Crossing the head of the combe, we noticed a spread of yellow pebbles and a few yellow flints, but these were confined to the sides of the combe.

A long search over Buzzards Field, but though much stained gravel was to be seen, we found few stones bearing work.

After lunch at the Swan we went to the Ash church spread, but found only one flake of palaeolithic age.

On leaving Ash for home we could see soap-suddy clouds in the south, not far above the 700 foot level, and I could but recall the old saying at Ash that when such low-lying clouds were seen in the south, rain would follow.

Rain, which had threatened earlier, came on after we reached home, and a nasty evening followed.

XLI

1912—AGED 74

THE implements found by Mr. Reid Moir below the base of the Red Crag of Suffolk were the subject of a paper which Sir Ray Lankester communicated to the Royal Society at the end of the year 1911. About the same time Professor W. J. Sollas published the first edition of his book, *Ancient Hunters and their Modern Representatives*, Mr. Charles Dawson found the now famous human skull at Piltdown, Sussex, Mr. Reid Moir discovered a human skeleton lying apparently beneath a deposit of Boulder Clay near Ipswich, and Mr. F. N. Haward published a paper on the power of natural forces to chip flints. There was, accordingly, during this period, a revival of interest in the eoliths and considerable discussion concerning their relation to the discoveries that were being made, and Harrison's notes contain some echoes of the events that were taking place.

B. Harrison to W. J. Lewis Abbott.

1. 1. 1912

The butcher has just said to me, 'I have been up to Terry's Lodge and find that the Water Company have begun to lay pipes along the road from the Four Wents by the reservoir, past Two Chimney House to Kingsdown'.

This means that the cutting will go past Crowslands and I may light upon some evidence, positive or negative.

Edward Clodd to B. Harrison.

18. 1. 1912

I was not prepared to hear that the Red Crag specimens are to be correlated with the eoliths. Their beak-shape makes them so dissimilar from your finds.

Prof. Sollas, in his new book, *Ancient Hunters*, won't have the coliths at any price, but Ray Lankester went for him in a recent number of the *Westminster Gazette*.

More power to your elbow this new year.

Harrison followed his usual method of dealing with distinguished scientific dissentients by sending to Professor Sollas 'a very taking specimen bearing a distinctly human bulb', as the former described it. Professor Sollas treated the stone with great respect, subjecting it to a close scrutiny and returning it to Harrison with a detailed account of the story that seemed to be written upon it.

W. J. Sollas to B. Harrison.

1. 2. 1912

The specimen you send for my inspection is one of the most interesting of your finds that I have seen.

I read its history as follows :

(1) Natural agencies detached it as an irregular flake from a flint nodule, and it subsequently acquired an ochreous colour which extended deep into its substance ;

(2) It lay in the bed of a stream with the rough side uppermost and was battered on the exposed surface by pebbles, which have left percussion cones as their mark : it was also subjected to considerable pressure and gliding movements, which have produced coarse *striae* on the under side ;

(3) Still later, it was chipped in a remarkable manner over a portion of its margin.

It is the chipping which is of especial interest to both of us. Two explanations may be given :

(1) That the chipping is the result of superincumbent pressure acting on a yielding substratum. In favour of this it may be pointed out that the chipping is confined to the margin, which we might judge from the general shape of the stone to have thinned off to a blunt edge.

(2) That the chipping was done by man. In favour of this is the fact that over one part of the specimen the chipping is such as to remove all sharp edges, as if it had been intended for a comfortable hold for the hand—'*surface d'accomodation*' of Rutot—while on the opposite side the chipping has produced a projecting point which would be very effective if the flint were used as a weapon for striking a blow.

In fact the flint would make a splendid 'knuckle duster'. I should not wonder if this was its true nature. But I should not like to commit myself to the assertion that it was.

Granting that it was, however, what does it prove?

The patina of the latest chipping is not deep, it looks to my eyes remarkably fresh, and, since palaeolithic implements are found in your deposits, what evidence have you to show that this was not also palaeolithic? . . .

Although Professor Sollas expressed a balanced opinion concerning the stone sent to him, it had evidently impressed him considerably, as a further letter which he wrote immediately afterwards indicates. Harrison concluded from the correspondence that the eolithic cause was making progress.

B. Harrison to E. Harrison.

4. 2. 1912

I copy Sollas's letter to hand to-day. It seems to me that the Plateau pawn is making good headway across the prehistoric chessboard.

Having to give a lot of particulars in my letter to him, I ventured to send on a copy of *Eolithic Philosophy*,¹ hence the explanation as to the museum not being musty.

W. J. Sollas to B. Harrison.

Oxford, 3. 2. 1912

Thank you for your long and interesting letter. I send by this post a copy of *Ancient Hunters*, and trust you will give me the pleasure of accepting it. I have ventured to inscribe your name.

If you should have another specimen as good as the one you sent, I wonder whether you could present it to our museum, where I would have it conspicuously displayed in the gallery devoted to prehistoric man. The gallery is quite freshly arranged and not a bit musty.

Harrison responded to this request by sending not one, but half a dozen eoliths from Ash and West Yoke to Professor Sollas for the museum at Oxford.

Having read and re-read *Ancient Hunters*, Harrison lent it to a correspondent, who returned the book shortly afterwards together with the following verses:

¹ See page 241.

ANCIENT HUNTERS

being a few irresponsible remarks made in 1912 by the Ipswich skeleton after reading Professor Sollas's book.

*You have dragged me from under the Boulder Clay of Bolton and
Laughlin's pit,
Where I've lived since B.C. x or y (for none of them knows a bit) ;
You have dug me out in nineteen twelve, but why should I care a hang,
For am I not man, Cro-magnon man, who once was orang-outang ?*

*In the Pliocene days, ere the ice crept down, when we roamed the land
as lords,
The flints, the good flints our weapons, our spear-heads, axes, swords,
We hunted the woolly rhinoceros, while our maidens our praises sang,
The praises of man, pre-glacial man, who once was orang-outang.*

*What, think you no human being has chipped those stones into shape ?
Would you class us with pithecanthropus, would you write us down as
ape ?*

*I tell you, the highest anthropoid and all of his simian gang
Have obeisance made to Pliocene man, who once was orang-outang.*

*You expected to find us Neanderthals, of the low gorilla race,
Think you the plebeian Mousterians on Britain's shores found place ?
From their hunting grounds would we drive them forth, while the hills
with our war-cry rang,
The war-cry of man, eolithic man, who once was orang-outang.*

*Yea, greet you my bones with reverence, to your great ancestor bend,
Bow, bow to your country's heroes, through the ages without end.
Long, long ere the earliest cave-man from his gloomy shelter sprang
Possessed we the land—your forbears and ours the orang-outang.*

In writing to Lord Avebury, Harrison referred to the forty-two years that had elapsed since they had first corresponded, and the progress in archaeology that had been made during the intervening period. Lord Avebury, when replying, reaffirmed his belief in the artificial character of the eolithic chipping.

Lord Avebury to B. Harrison.

26. 4. 1912

Forty-two years is a long time! and we ought both to be thankful.

There can surely be little doubt that the 'eoliths' you send show evidence of human workmanship. The *striae* you mention are not visible to my old eyes.

B. Harrison to W. J. Lewis Abbott.

7. 5. 1912

A bone was brought in last evening. It was found in the old fissure at a depth of forty feet. The finder hopes to get more, for it was found close to the vertical face of the working.

Sollas writes, 'I am beginning to prepare a second edition of my work, and propose to give some additional space to your implements, adding a few figures. If you could lend me the specimen you first sent me for this purpose, I should be greatly obliged and would ask your permission to figure the "boucher" I have referred to. I think the sub-Crag beaked implements and your double-notched beaks should be treated apart from the eoliths'.

This indicates that he is impressed by Moir's finds.

During his wife's long illness Harrison regularly devoted about an hour each evening to playing cards with her, cribbage being one of the games played. As she was not a good loser, he—to use his own expression—'usually contrived to let her win'. An occasional note of a remarkable hand was made.

N.—14. 5. 1912. After playing cribbage for fifty or more years I managed to-night to hold the knave of diamonds and three fives. The card turned up was the five of diamonds, so I scored twenty-nine.

B. Harrison to W. J. Lewis Abbott.

13. 8. 1912

I have drawn a circle, six miles in diameter, on my map—Seal to Comp—and find a great deal of interest in re-gnawing the old bone. I manage to get more meat than of old, for I know the lie of the land. This more limited range suits my old legs. Now and again I get a lift in a car to the farthest point and am not unduly tired by the walk home.

B. Harrison to W. M. Newton.

12. 10. 1912

The fine spell of weather set me to work in constructing a rockery in my back garden, and in doing so I made use of a three-ton heap of flints lying in my front garden.

This heap represented the accumulations of over forty years, since, day by day, as flints were gathered by me on early morning walks,

or brought in by my scouts, all the goats were thrown on the heap while the sheep were put into fold.

It is like a palimpsest of my life's work. The top layer is, of course, the latest, the next dates back some time, and as the lowest layers are reached, the very early 'throw-aways' come into sight.

As I got deeper into the heap the interest increased. I found many sheep fit for the eolithic fold, for in the not-quite-certain days a good many were relegated to the waste heap that, after thirty years' thought and study, can now be put into the witness box.

The lowest layer disclosed a quern of pebbly conglomerate from Oldbury Camp, lost to sight since 1865, though to memory dear.

XLII

1913—AGED 75

THE discovery in 1911 of the Piltdown skull was an event of great archaeological interest, and Harrison corresponded with Charles Dawson, the finder, concerning the geological position in which the bones were found, receiving from him samples of flints and gravel. In 1913 Mr. Dawson called on Harrison, bringing with him a specimen of flints found in association with the skull which were thought to bear the work of man. Harrison, however, regarded the stone shown to him as unconvincing.

B. Harrison to W. J. Lewis Abbott.

17. 5. 1913

Martin came on Sunday last and I had a hurried look at the Geological Society's journal and just time to read the discussion on the Piltdown skull. When I carefully scanned the lithographs [of the supposed implements] I must confess that I had my doubts. To me most of them were meaningless.

To-day there came a post card from Dawson stating that he was motoring round my area and would call. He came with a friend.

Mr. Dawson produced a small flint and asked me, 'What do you think of this ?' I could only say that nature had formed the hollow, and that there was no work of man upon it to prove that it was ever used by our ancestors. I then showed him my two best sets of eoliths : the 'pamphlet' set,¹ and a strong group of hollow scrapers.

It is to be noted that Harrison's opinion was based upon the examination of a single specimen.

The subject of Wealden denudation has been one of perennial interest to the geologist, and has special attractions for students of the eolithic problem. Harrison's earliest information about

¹ i.e. the implements used to illustrate the pamphlet that he had published in 1904.

the geology of the uplifted Weald was gained from his brother, during his boyhood. He had added greatly to his knowledge by his observations of the drifts brought northward into the district around him. His original views were modified in certain respects during his later years in the light of the investigations of Mr. Lewis Abbott, who stressed the point that the conception of a single great anticlinal fold with north and south slopes was too simple to accord with the facts of Sussex geology. Major R. A. Marriott raised the question anew in 1913, and corresponded with Harrison on the subject in that year and afterwards.

Major R. A. Marriott to B. Harrison. Lewes, 26. 3. 1913

Do you accept the theory of the dome of chalk over all the Weald at one time? I do not, and have, so far, good reasons, though I am not well acquainted with all parts of this country.

The death of Lord Avebury at the end of May removed one of Harrison's oldest friends and teachers. Their acquaintance had extended over nearly half a century, dating back to the days when Harrison was exploring Oldbury Camp and its surroundings, and when, although he had found two or three palaeoliths—and even two eoliths—his knowledge of prehistoric man in Kent was practically confined to the neolithic culture. Harrison sent many of his early finds of implements to Lord Avebury for an opinion, and the replies that he received had not only assisted him to clear up obscure points, but had sometimes given a turn to the direction of future investigations.

N.—21. 9. 1913. 'To Pilgrims' Way and thence to Old Terry's Lodge, where I found a block of Oldbury stone as large as a half quartern loaf. The pond has been deepened to, say, twelve feet, and from the stuff thrown out I could see that a sand stratum has been cut into. Went on to Birches, and searched a plot of land that was trenched about two years ago. Found several eoliths, including one hollow scraper.

The high ground at Crowborough can be seen from many points on the Chalk escarpment above Ightham, and its position on the ridge of a Wealden anticlinal fold caused Harrison to point it out to his visitors, when explaining to them the geological

features of the district, as the starting point of the ancient rivers that brought down the implement-bearing gravels. 'Old Crowborough', accordingly, had a secure place in his affections.

B. Harrison to E. Harrison.

9. 10. 1913

I am so glad to hear that you have been to my 'native place', Crowborough, for in the locality was born the only remote ancestor of mine whom I care to remember. I have spent three pleasant days at Crowborough and, like you, have noted the blue hills of Kent to the north and, to the south, the downs near Lewes.

B. Harrison to E. Harrison.

20. 10. 1913

Dr. Lorenz has just called. He said, 'I went to the Natural History Museum, and heard a lecture on the extinct *mammalia*. The Piltdown skull was mentioned, and your eoliths were brought forward, the lecturer saying that, without doubt, most of the eoliths are the work of man'.

This little bit of news is worth a stamp, but, as a set off, Professor James Geikie writes, 'In regard to the eoliths I have an open mind'.

The letter from Professor Geikie had reached Harrison earlier in the year in April, and the writer, after stating that opinion was divided respecting the eoliths, suggested that if the question were submitted to a jury of geologists a verdict of 'not proven' would be given. Harrison sent this letter to Lord Avebury, who was too ill to reply to it. However, in the latest edition of *Prehistoric Times*, which was prepared by Lord Avebury although not published until after his death, the verdict was in favour of the eoliths, and a triumphant note of Harrison's records the fact.

N.—14. 12. 1913. My birthday: seventy-six. Lord Avebury's book issued. In it he unhesitatingly accepts my eoliths and Moir's sub-Crag implements.

XLIII

1914—AGED 76

B. Harrison to E. Harrison.

12. 5. 1914

Yesterday [a neighbour] called to say that he was going in his car to Malling, and would take me as far as I wished and then drop me. I elected to alight by Windmill Hill [near Comp] in order to examine thoroughly a plantation where some thirty arrowheads have been found by a youth during the past few months.

From the paucity of flakes and cores I took the place to be a site to which animals resorted for water. Many, many years ago Stiles used to go there in the evening, for at twilight woodcock could be shot on their flight from the huge waterless Hurst Woods to the boggy land hereabout.

I paced a plantation for two hours and then rode back by motor-bus, refreshed by the fresh air.

A bus is now running daily, and I hope on some bright day to ride to Seal gatehouse in order to re-examine the bed of gravel in which I found so many palaeoliths in 1881-3, and after twenty-five minutes' search to return by bus, or to walk back.

Again, I can ride as far as Wrotham Heath and so cover the Comp area, getting a good opportunity to search where hard-worn palaeoliths have been found *on the divide* at 400 feet, O.D. It will be clear to you how useful this bus will be to me : extending my area, which is now limited by my two miles walking radius.

Although, as will be seen from the preceding note, Harrison had found it desirable to limit the length of his walks, he had not taken final leave of his more distant hunting grounds, and the kindness of friends often enabled him to travel by car to a point of interest whence he could make his way home after searching for an hour or two at some promising spot. In a note of 14 June, 1914, when he was driven to many places on the

Plateau, he mentioned noticing a new aspect of the head of the valley which begins near the Vigo inn at Fairseat, and adds that it 'must be seen to later on'.

A. M. Bell to B. Harrison.

22. 7. 1914

I am pleased to hear of . . . more Maplescombe stones. I have, as you know, always been a Maplescomber, that is, a believer in their peculiar interest, but especially since I saw the Belgic finds, where the Strepyian closely features Maplescombe : at all events it is more of a *transition state* than I have seen in England.

B. Harrison to W. J. Lewis Abbott.

2. 8. 1914

The last two implements that I have sketched I have named *Beauty and the Beast*, the one the finest ogival curved palaeolithic specimen I have ever secured, and the other the king of the eoliths.

Query, which of the two is the beauty ?

The outbreak of war in August, 1914, marks the close of another period in Harrison's life. References to the war, except in the early months of the conflict, occur but sparingly in his notebooks, but the anxiety of the time and the contraction of many activities necessitated by circumstances led to some changes in his daily habits to which, after the war, his advanced age prevented him from returning. He was old enough to remember the hardships endured during the Crimean war in 1854-6, and, in some respects, he recalled those days and took them as a standard by which to estimate what might happen again.

N.—3. 8. 1914. Bank holiday. War broke out. Everybody and everything in confusion. Germans invade Belgium—repulsed with great loss at Liège. Many thousands killed.

B. Harrison to W. J. Lewis Abbott.

30. 8. 1914

Apples are so plentiful that growers will not care to pick them, and rosy-red plums hang like ropes of onions, uncared for and wasting on the boughs. It seems a pity that some of these are not sent to places on the line of route of the troops, or to military base towns,

where our Tommies might feast on the fruits of the earth so providentially provided.

N.—31. 10. 1914. Hundreds of soldiers stopped for an hour in the village, the street being filled—the Lancashire artillery. Feasted the horses on apples which had fallen off the trees, and the children brought damsons and cob-nuts. Quite an event. The men were *en route* to Faversham, via Maidstone, and are to embark for France in December. Real Lancashire lads—it was so pleasant to hear the Lancashire brogue.

N.—28. 12. 1914. Trenches are being dug on the London road by the milestone on top of Wrotham Hill. 400 soldiers are at Wrotham.

XLIV

1915—AGED 77

EVEN the war brought certain compensations for the ruin it wrought, and the trenches, to which Harrison's note of 28 December, 1914, refers, furnished him with some of the last sections of the ochreous gravels that he was able to examine.

B. Harrison to W. J. Lewis Abbott.

1. 1915

Trenches are being dug on the crest of the Chalk hills, just to the east of the wood by the summit level stone, 770 feet, O.D., in order to protect the main road to London. Yesterday the Lieutenant in charge of the work came to see me, and afterwards two soldiers came to see the eoliths. One of these men has found many palaeoliths in the Farnham gravel, but had never seen true eoliths.

The Geological Survey should send someone to inspect the deposit.

Harrison obtained from the gravel at West Yoke a massive ochreous implement from which several large flakes had been struck. It is eolithic in general character, but the bold flaking resembles palaeolithic workmanship, and the stone might be regarded as one representing the transition stage from eolithic to palaeolithic culture. It bears an accidental resemblance to a human face, and the profile caused him to name it John Bull.¹ He sent it for exhibition to the office of the *South Eastern Gazette* in Maidstone.

¹ For his own purposes Harrison labelled many boxes of his implements, and occasionally individual specimens, with names having no scientific significance. This practice enabled him to find particular implements speedily when occasion required, but was sometimes confusing to other persons.

B. Harrison to E. Harrison.

5. 3. 1915

The editor of the *South Eastern Gazette* writes [with reference to 'John Bull'] :

'It attracted a great deal of attention, and one observer of the working class type called in to tell me we were making ourselves ridiculous by talking of an implement fashioned by hand 200,000 years ago. "There was no such thing as 200,000 years ago"', he said indignantly.

There is a Pepysian touch in the following letter :

B. Harrison to E. Harrison.

27. 5. 1915

I have forwarded to you two notebooks, but as yet I have not lighted on Book 4, covering 1881-4. I had it to refer to not long since, but it is misplaced. It is possibly downstairs, or in the cupboard, for although [the housekeeper] is all that can be wished as regards household affairs, yet she is a bad librarian, and in her weekly putting to rights in our room she clears away anything and everything lying thereabout—to my discomfiture.

The room to which Harrison referred in the above letter was a bed-sitting room in which Mrs. Harrison passed her days during her long illness. To this room he brought from his museum books, correspondence, flint implements, or whatever the needs of the moment required, and it is perhaps not to be wondered at that the housekeeper considered an occasional 'tidying up' to be necessary.

A pleasant letter which Harrison received from Sir Ray Lankester, who had visited Ightham, pictured a scene in this room during war time.

Sir E. Ray Lankester to B. Harrison.

2. 6. 1915

I like to think of you sitting . . . far away in the beautiful Kentish garden-land by the side of your invalid wife—perhaps during some hours of the night when sleep eludes you—and reading my thoughts and memories to her. I hope they will help to take your thoughts and minds far from the awful struggle which is now going on. . . . I wish I could go far away and live with birds and monkeys or Australian savages—or on the sea-shore, where no word of Germans could reach me. I am—unfortunately—too old and wanting in strength to fight on or help our cause in any way.

B. Harrison to E. Harrison.

6. 1915

Three years since [an archaeologist] wished to buy from me some choice flints which I did not desire to part from, so I lent them to him, and he still has them. He recently asked me in what way he could recompense me.

I replied, '*The Autocrat*, *The Professor*, and the *Poet at the Breakfast Table* are my favourite books: I should like to have them in duplicate so that if I lent one copy I should still have the other to read'.

He very kindly sent me the three volumes in a choice edition. I first bought the *Autocrat* when I had to go to Green Street Green,¹ and I never minded if the train was late, with the old book in my pocket.

I find Tennyson gives faulty rhymes sometimes, but I have never yet found Holmes sinning.

B. Harrison to E. Harrison.

5. 7. 1915

[A friend has given me] Hilaire Belloc's *The Old Road*, which has been read thoroughly, and, in these depressing times, has proved most welcome. In the past I have traversed the old way, from Titsey to Lenham.

I wish the author had called on me instead of gleaning information at the Bull Hotel at Wrotham, for on one special point I could have put him right, namely, as to the supposed crossing of the Medway by Snodland in flood time. It is not unlikely that the road then used was the road called by our old folk the Pilgrims' Way, from Kemsing to Seal Chart, past Ivy Hatch Plain, towards the high ground by Mereworth, Watlingbury, Teston, and Barming, and thence by a farm road to a fording place across the river still to be seen when the locks are opened, and so on towards Coxheath, joining the old way to the east.

Such an alternative route must have been needed in flood time, and the author hesitates about the Snodland route.

The way suggested in the above letter would have taken the Canterbury pilgrims, or other travellers, to a ford considerably higher up the river than Snodland, where a crossing may well have been impracticable during wet seasons.

A ride in a friend's car on a Sunday morning in August took Harrison once more to a favourite hunting ground :

N.—29. 8. 1915. P. Martin came at 10.55, and in three minutes we started towards Exedown. The hillside was at its best, the clematis

¹ Where relations of Harrison's first wife lived.

covering the slope of the old chalk pit. We intended following Sidehilly Lane, but owing to very heavy rain we passed it by and went on to Farningham corner [and thence up the Maplescombe valley]. On getting to Maplescombe we dined under a group of stacks and then ventured to pace the field. I at once made tracks by a bee line to the top of the field, by a wire fence, and there found some ochreous flint at the highest limit of cultivation. This was a fact gained.

We searched as well as we could on the oat gratton, but the soil became like liquid glue, so that walking was arduous. I found some [eoliths] which I gave to Martin. I focussed on the stained flint, but he did not confine himself to this and so found many relics of later age. We returned via Eynsford, Shoreham, and Otford. This gave me a good grasp of the configuration, Well Hill, the Timberden valley, etc.

Harrison still attempted from time to time to induce Worthington Smith to accept the eoliths as artificial by sending him persuasive specimens, but he refused to take a path that led definitely either to acceptance or to rejection.

Worthington G. Smith to B. Harrison.

28. 11. 1915

There is a tale of a nigger preacher who tried to convert a fellow nigger, and said there were only two paths in the world—one led to hell fire and the other to everlasting damnation (meaning salvation). He failed to convert his friend, who said he would avoid the paths and keep in the woods.

I am obliged to keep in the woods.

XLV

1916—AGED 78

THE notebook for the year 1916 contains few entries of general interest. It shows, however, that Harrison was still young enough to spend with enjoyment a full day in his museum, showing his coliths to a congenial visitor and talking over the problems to which they gave rise. Mr. Reid Moir, the discoverer of the sub-Crag implements in Suffolk, was one such visitor, whilst Major Marriott came several times, and discussed the geological history of the Weald.

The strain of the war period was occasionally relieved by the receipt of a letter such as the following. Harrison's typewriter had lost an 's', and, in the circumstances of the time, he was unable to get it repaired.

Worthington G. Smith to B. Harrison. 20. 10. 1916

I have received your note, but am not much the better for it. Your typing machine seems badly out of order, with letters dropped out and the blank spaces of the letter roughly filled in with some ink substitute apparently made of mud and thick, mouldy, boot blacking. Instead of a pen you appear to have used a piece of firewood or small branch. You signed your name with this stuff and instrument, and then shut the note up all wet and closed it with a mallet, using mouldy dripping as an adhesive.

B. Harrison to E. Harrison. 10. 1916

Yesterday [a friend] came. We walked to Borough Green and then hired a car to take us to Wrotham, Fairseat, and Ash, seeing all that he and I wished to see.

We 'refreshed' at the Swan inn, in the room where I feasted with Sir Joseph and Lady Prestwich on 'hotted-up' mutton. There was to be had only a cold boiled leg from the previous Sunday's dinner,

and Lady Prestwich asked for it to be warmed up. While this was being done we had half an hour's search on the classic spot where I found, in 1885, the first palaeolith from Ash. On our return to the inn we found the mutton first class, but the simple old girl who was hostess had neglected to 'hot up' the plates.

On Lady Prestwich saying, 'How unfortunate, for the mutton is all that can be desired', Professor Prestwich replied in his quiet way, 'But the *beer* is particularly good'.

In his long geological rambles he used to have a glass of ale, but later on the doctor forbade this, and he had to drink sherry, which he did not care for. One day we were going to Green Street Green, and owing to a lady friend coming in, Lady Prestwich was unable to accompany us. She gave me instructions to take care of her husband and not to let him do too much, but on getting to Green Street Green he gave the coachman some directions which I did not hear, telling him to drive to the inn at Pratt's Bottom, two miles distant, and wait for us there. He then led me across hill and dale to the inn, which he entered. On following him shortly afterwards, I found him at the bar enjoying a glass of forbidden bitter.

In the course of his life Harrison came across several friends who were interested in spiritualistic phenomena, and he had read a book by Dr. A. R. Wallace on that subject. His own attitude might be best described as one of healthy though not bigoted scepticism: he was always open to argument and to conviction, but the latter came to him only with evidence, not with mere assertion. The following incident may be allowed to speak for itself:

Lionel H. de B. Crawshay to B. Harrison.

20. 11. 1916

You may be interested to hear that I was in connexion with a spiritualist some while ago, with a friend who was very anxious to make a convert, and at the end of the proceedings I was asked if I cared to put a question to the spirit who was supposed to be presiding at the meeting. I could not think of anything special to ask at the time and was not altogether prepared to believe what was told, but I suddenly decided to ask concerning yourself, and see what would be said. I give you the answer almost as I received it, and you can take it for what it is worth. I have an open mind on this subject myself, having paid but little attention to the matter, but I gave to the person acting as medium your last letter, which I had on me.

As the room was pitch dark, they of course could not read it, and I did not give the envelope.

'This letter is written by a very old man, he is nearly eighty, and a big man, and has led a very active life. He has many years before him, and for his age is very healthy. He seems to have lived a great deal out of doors, his mind is on hard things, and I see in his hand many small, hard things, and they are all round, but I do not know what they are. He has nothing to fear in his health, but I seem to see that his left leg is not strong : tell him to be careful of it and not to worry, he has many years before him'.

Harrison's comment on this pronouncement was, 'This, to say the least, is a bit comforting, but yet I must continue on the take-care-of-yourself line of action. It is my *right* leg that has varicose veins'.

It may be added that Harrison was nearly seventy-nine years of age when he received this letter, he was of average height, but somewhat stout. He lived for nearly five years afterwards, and if by 'hard things' his flint implements were indicated, he often had them in his hands, though they were not all round.

The record of this year may be closed by the following note :

N.—9. 12. 1916. Professor Barnes came and spent three hours and a half in my den. He told me that Mr. Reid Moir was greatly interested in his inspection of my stones, and had likened his day to a visit to an ancient prophet.

XLVI

1917—AGED 79

B. Harrison to W. J. Lewis Abbott.

28. 1. 1917

I am getting real patriarchal palaeoliths from the Chalk crest at Boxley from my scout Tom Skinner. Tom's father was an old worker for me in 1892-3, but was found dead in his chair. A month after his death the boy brought me some choice spoil.

'Why, Tom', I remarked, 'I did not know that you were a finder'.

To this he replied, 'Before he died, father told me to carry on the business'.

He is now carrying it on nicely.

The present is a convenient opportunity to insert two or three undated notes and letters relating to the band of land workers whom Harrison enlisted to search for implements in the fields—his scouts, as he usually called them. They were, on the whole, very faithful to him, not only in the early days when he was the only known collector in the locality, but also in later years when other archaeologists were accustomed to visit his area, and, in some cases, to offer larger sums for single specimens than he could afford to pay.

He was interested in his scouts. He knew their ways, their homes, and their families. He would visit a cottage when on an expedition upon the Plateau or elsewhere, ask for any recent finds, separate the sheep from the goats, pay for the former and transfer them to his knapsack—or, if the weight of the spoil so required, arrange for them to be sent on to him by the miller or the baker's cart at a convenient time.

One of the best of his scouts, as far as recognizing implements was concerned, when engaged on one occasion to open a pit in

the ochreous drift, drew a few days' pay in advance, deserted the pit for the beer-house, and deeply disappointed several eminent geologists who had been promised an interesting morning at a newly-opened (but actually non-existent) section.

Another scout joined up at the outbreak of war in 1914, was stationed in the Somme valley, found a palaeolith when digging a trench, carried it with him 'over the top', and finally brought it safely to Ightham, and to Harrison, when he came home on leave.

In Harrison's garden there lies a large fossil *ammonite* weighing many pounds. After his death one of his scouts called at the house with some flints. His eye fell upon the fossil.

'Ah', he said, 'I brought Mr. Harrison that stone. I carried it a mile and a half to him, and when I arrived he only offered me sixpence for it. "Why", I said, "you gave me half a crown the other day for a little flint that don't weigh nothing near what that one does". "Yes, I daresay I did. But I do not want fossils. If you do not think sixpence enough, take this one away".'

'"Take it away?" I said, "Why, I've carried it a mile and a half and it weighs a stone or more. I ain't going to take it away again" '.

B. Harrison to W. J. Lewis Abbott.

No date

One instance will show that I make the most of good scouts, and so farm high and get a good crop.

One Sunday, last winter, a poor fellow came down from the Plateau, a stranger to me. At first glance he seemed to have brought some large natural stones and nothing else. I said, 'I am sorry you took the trouble to bring me all these stones, they are perfectly useless'.

He explained that he was out of work and hard up; and having seen other men picking up flints he did so too, and brought them down. On looking at his smaller specimens I lighted on two palaeoliths and showed him other specimens to educate his eye. He has now become a really good servant.

His house lies beyond West Yoke, and I go from time to time to look over his finds, paying him for them, and he is true to me.

Worthington Smith once told me that he did not make friends with the men or instruct them; I do, and find it the best policy. A little lecture does a lot of good.

I now have four men up on the Plateau on the look-out for implements. But I go to the same fields and find some that have escaped their notice.

A. M. Bell was one of the first to accept the eoliths as chipped by man, but hesitated for many years to agree that the Plateau eoliths had been shown to be definitely older as a class than the earliest Plateau palaeoliths. This point was mentioned again and again in correspondence, but a letter of February, 1917, indicates that Harrison had very nearly satisfied his friend.

A. M. Bell to B. Harrison.

10. 2. 1917

As I understand your work, you have proved that :

- (1) simpler tools preceded the use of the formed palaeolith ;
- (2) palaeoliths occur on the North and South Downs belonging to the drift of the Wealden dome ;
- (3) an eolith stage is found on the downs, without any formed palaeoliths ;
- (4) the Maplescombe series marks a transition from the use of eoliths to definitely shaped palaeoliths. . . .

I am quite clear that you have succeeded in (1), (2), and (4).

Whether eoliths all belong to one age, or occur at different stages, is a point on which you are not very clear. My view is distinct—(1) that they were once the sole tools of man, (2) but that they have fallen out of use at *no succeeding stage*. At the present day, the knifeless boy who scrapes a piece of wood with broken glass uses an eolith.

The publication by Mr. Bell in 1916, in the form of a *Johnson Calendar*, of a collection of sayings and anecdotes from the life and writings of Samuel Johnson, turned Harrison's attention for a while to the works of the great doctor, and led indirectly to the discovery—if it be a discovery—mentioned in the following letter :

E. Harrison to B. Harrison.

31. 3. 1917

The point about the word *lexicographer* is this : the definition of lexicographer in the dictionary as 'a harmless drudge' is always attributed to Johnson himself, and indeed, Boswell credits him with the sally.

Now Johnson's dictionary was first published in 1755.

I happened to turn up the word in the *fifteenth* edition of Bailey's dictionary, published in 1753, and found 'lexicographer' defined

there as 'a writer of dictionaries ; also a harmless drudge'. This suggested that Johnson cribbed the joke from Bailey.

I wrote to you asking you to refer to your (*eighth*) edition of Bailey and I also consulted a friend's *sixth* edition, and I found that neither of these editions contained the word lexicographer. This fact led me to conclude that Bailey had probably put in the word not long before 1753.

This morning I visited the British Museum reading room. There I found that even the *fourteenth* edition of Bailey (1751) contained no mention of 'lexicographer'. But I also made the discovery that there is a volume II of Bailey : a supplemental volume containing additional words. In this volume (1731 and 1737 editions) I found 'lexicographer' included, the definition given being 'a writer or compiler of a lexicon or dictionary'.

From all this I conjecture that Johnson, who began to compile his dictionary in 1747, although it was not published till 1755, talked about his immense labours and told his friends that a lexicographer was only a harmless drudge. He may have added that he intended so to define the word. However that may be, the joke reached the ears of Bailey who, possibly by way of a dig at Johnson, slipped the word into the 1753 edition of his own dictionary, and so forestalled the doctor.

I have written a note to Mr. Bell telling him all this.

A periodical overhaul and rearrangement of his implements was a rite that Harrison performed at intervals, finding much joy in the memories so called up. The stones housed in his museum and his garret represented the best of his treasures, those stored in the 'lodge'—this was the old lodge in which Thomas Harrison found the smuggled goods in the early days of the nineteenth century¹—were less choice specimens, and the boxes in which they were kept did not remain long free from cobwebs, so that occasional 'spring cleaning' was necessary.

N.—20. 6. 1917. Completed the task of overhauling the garret, den, and lodge. All is now in complete order. The lodge yielded important relics, recalling work at 400 feet, O.D., in the Basted valley, Crouch, Old Soar, Roughway, and Gover Hill ; and also the distribution of weathered chert and Tertiary pebbles at Fawke, Raspit, and Oldbury Hills at 600 to 683 feet, O.D.

¹ See page 21.

An uncommon fossil from the Hythe beds gave rise to the following correspondence :

B. Harrison to A. Smith Woodward.

15. 7. 1917

All through my life I have been a fossil collector, but until Wednesday last I never found one of this class, and although I have searched through Prestwich's *Geology*, and other books, I cannot find it associated with the Hythe beds.

I have hitherto paid attention to the hard rock of that series of beds, but now I will attend closely to the hassock.

F. A. Bather to B. Harrison.

British Museum (Natural History), 27. 8. 1917

I beg to acknowledge the receipt of . . . the very interesting specimen from the hassock in the Hythe beds.

This specimen is, as you have rightly labelled it, an example of the *pentacrinidae*. It does not, however, belong to the genus *pentacrinus* in the strict sense, but to the more modern representative of the family, the widely distributed genus *isocrinus*. In your specimen the arms alone are preserved, and no portion of the cup or of the stem remains. Since the contrary is usually the case, that is to say, the fragments of stem are more common than fragments of arm, and since specimens have to a large extent been based upon characters shown by the stem, it is not very easy to compare your fossil with those previously described. In any case I am not aware that the genus has previously been recorded from the Hythe beds.

The specimen will therefore be a valuable addition to the national collection, and we are most grateful to you for so kindly offering to present it. I hope that you will follow up your intention of paying closer attention to the hassock in future.

N.—15. 9. 1917. Searched the plantation in front of Chartlands, from which I have implements of cave age, but found only a chert gravel and not a single fragment of flint. Returned by Gate Field to Patch Grove (west) but found nothing. Went on by the bathing place to little Furze Field and had a blackberry feast. Paced Ives, and, as before, found a good number of worked flints, on the same level as the former site, and confined to a couple of acres.

On 31 October Harrison heard of the death of Worthington Smith a few days earlier. Their friendship had extended over a period of forty years, during which they corresponded regularly on archaeological subjects, and agreed on all, save one.

The differences in their respective views concerning the eoliths led to a long-continued correspondence—‘missionary’ on Harrison’s side, with a little light verse on occasion, and not always serious on the part of his friend, who skilfully declined to be ‘cornered’ by incautious admissions as to the apparently artificial character of individual specimens, whilst he remained unconvinced about the general question.

In the notebook for 1917 is sketched a palaeolithic implement found in High Field (above the Shode stream) on 22 April and beneath the sketch is written, ‘Presented to Mr. Worthington Smith, as it was through his paper, *On a new form of Potato Blight*, that I went to the field in 1880 and found my first palaeolith there—a deep ochreous one greatly de-patinated, near the stile by the steps’.

The finding of this implement marked the beginning of Harrison’s systematic search of the Shode gravels.¹

In an undated note written apparently in November, 1917, Harrison recorded a series of searches for implements in the high-level gravels of the Shode, which he could reach without a lengthy walk. He ‘covered on successive days Home Field, Great Field, Coney Field, Ives, and Brooms, but found Gibbet Field and Ives too rough for search, though an area to the north was fit for search, and here I found eoliths and some palaeolithic evidence. The weather was favourable for search, but a good hard rain is needed to wash the soil’.

The same note continued :

I called on [a workman living at Ightham who had recently lost his wife] on the following Sunday, and had a long and interesting chat. On his mantelpiece I spied some *echinites*, and on my taking one up, he remarked, ‘I got all these from Shoreham fifty years ago. I was employed in building a mansion on the hill above the paper mill, and for a long time I did nothing but block out flints : some were black, others yellow, and some were fresh from the chalk’. The *echinites* came from the flints used in building Prestwich’s house, Darent Hulme : some were from Well Hill, others from the Thames gravels and East Kent, and local flints were also used. I secured one *echinite*, blackened by the smoke of fifty years.

¹ See page 87.

Nearly every part of the house which Sir Joseph Prestwich built for himself at Shoreham had a geological significance : the walls were faced with flints, and the interior decorations included representations of plants of the Coal measures and extinct animals from various geological formations. Harrison, who was well acquainted with every feature of the house, felt a keen pleasure in the chance meeting with one of its builders, and in his account of the way in which the work was done. The smoke-blackened *echinite* was transferred to his museum.

XLVII

1918—AGED 80

N.—3. 1. 1918. My first walk for a fortnight, as the conditions have been far too cold to venture out. To-day I walked to Borough Green in order to get whisky, butter and cheese, but could obtain none of them. I bought a bottle of rum. To-day was our first meatless day and we partook of soup.

N.—26. 1. 1918. A long search on Kiln Field and Brooms. I observed weathered yellow chert in Kiln Field: none in Brooms, but a vast quantity of worked flints at 400 feet, O.D., and one good cave implement.

N.—17. 2. 1918. To Buley. Paced the field where I found a palaeolith in 1881. No flint was observed: weathered chert, and one stone apparently worked.

N.—18. 2. 1918. To Buley, pacing the ploughed land in Buley Field (west). The field needs washing by rain. One tiny piece of a palaeolith, no flint.

N.—19. 2. 1918. To Buley to inspect the trench through the Sandgate beds for water pipe. To the swallow hole and paced the plantation where so many flakes were found, but it was a mass of weeds.

N.—20. 2. 1918. To Fane Hill: one eolith and three-fourths of a palaeolith.

N.—29. 5. 1918. Searched Tebbs patch. In bad condition, but managed to find two white flakes. Paced the recently ploughed area to the east of the house, and at the extreme eastern end found large blocks of Oldbury stone and weathered chert.

B. Harrison to E. Harrison.

29. 5. 1918

For the past fortnight I have been daily pacing Home Field. Ives, Brooms, Fane Hill, and High Field. Gibbet Field and Kiln Field will be taken in hand later, as they have been only roughly ploughed.

As a rule I start off fairly early and return at 12.30, and in the

evening start at five and return at 7.15, refreshed, rejuvenated, and healthily tired, and then sleep comes as a balm.

It has been a very interesting and satisfying quest, and now I know many things that have puzzled me in the past as to the lie of the various gravels, stained and weathered chert, northern and southern drift, etc.

B. Harrison to E. Harrison.

5. 6. 1918

I am now observing all up the Buley-Warren valley from Mill Lane, and I find precious relics revealed by the ploughing of virgin soil. At present the soil is dry and I must search well after we get a copious rain wash.

The ploughing up, during the war, of ancient pasture gave Harrison opportunities of which he was not slow to avail himself, to search 'virgin soil', but the fact that he was now an octogenarian confined his observations to the fields close around him, and prevented him from exploring more distant areas which he would have examined with zest ten years earlier.

B. Harrison to W. M. Newton.

10. 1918

I am now about to go into winter quarters. For the past two months I have been busy pacing the pastures brought into bearing by the plough, and this season by the tractor. The land is now super-saturated, so I must leave off and do a good search in the spring when the land has been well washed and weathered.

XLVIII

1919—AGED 81

EARLY in the year, when he was eighty-one years of age, Harrison received an official intimation that the amount of his pension from the Civil List had been doubled, as from 1 April, 1918, 'in recognition of your devotion to scientific work and your advanced years'. The addition to his income, at a time when war prices prevailed, was welcome, and the grounds for the award as expressed in the letter which he received, were naturally pleasing to him.

In spite of his 'advanced years' he was able to meet a party of archaeologists on Oldbury Hill in June, and to conduct them to the rock shelters, and across the hill to Seven Wents. There he intended to catch a motor-bus home, but it passed 'full up, so I was stranded, but a kind motorist picked me up and drove me home in double quick time'.

In Harrison's young days the lanes and woods around his home contained an abundance of ferns, and he noted with regret their gradual and almost entire disappearance, owing to the depredations of professional fern collectors from Covent Garden and elsewhere. About the year 1904 a knoll of Oldbury Hill, which had suffered the loss of most of its ferns, was enclosed by a new owner, who, however, gave Harrison permission to wander there at will. In August, 1919, he visited this spot and his note states that 'it is a perfect fern paradise. Owing to the public being kept out the ferns have grown immensely and the banks are again covered'.

G. Abbott to B. Harrison.

Municipal Museum, Tunbridge Wells, 27. 11. 1919

Yesterday a boy of seven walked into the museum and asked to be told about the Stone Age !! I tried to, and sent him home very happy, with a small neolith, labelled, in an envelope. Don't we progress ?

B. Harrison to E. Harrison.

20. 12. 1919

I note that *Reynard the Fox* is being reissued. To one like myself it appeals strongly. Twice in my life I rode to a meet at Styant's Bottom on our pony, but as a rule I walked, and thus had the cream of the hunt. Before the railway line was made in 1874 I knew the route the old Batts Wood fox would follow, and by placing myself suitably I, as a rule, had the best of it. Things altered after the railway was made.

XLIX

1920—AGED 82

B. Harrison to E. Harrison.

20. 2. 1920

I have had two nice walks this week, one on Wednesday to a meet of the foxhounds at Ivy Hatch. I found it a bit tiring, but returned refreshed after partaking of a glass of bass. I reached Ivy Hatch via Rose Wood, just in time to see the start for the cover at Fairlawn. Here I was introduced to an old friend of Prestwich, and we had an interesting talk.

I had not been to Ivy Hatch for over two years and it was pleasant to hear folk saying, 'Why, Mr. Harrison, we heard you were ill not long since, and hardly expected to meet you again at a hunt', so all went merry as a marriage bell, and I returned in fine fettle for dinner, and did justice to it.

The finding of fragments of pottery in a sand pit took Harrison to Ivy Hatch again in July. He interviewed a workman who suggested that 'it was a lime-kiln', and brought away a portion of an urn. Harrison added to his note on the discovery, 'May it be an outlying portion of Rose Wood. Must go again'. As the Rose Wood pit village is only a few hundred yards away, the conjecture seems not unlikely, but no further evidence came to light.

B. Harrison to E. Harrison.

26. 10. 1920

I had a grand tour of my world yesterday. [A friend] came with her brother, and pressed me to go with them in their car.

The route was to be to Kemsing, via Seal Chart, but on seeing Cotman's Ash gap, I mentioned its importance. After inspecting Kemsing church we proceeded westwards, turned into the Pilgrims' Way and thence up the hill to Cotman's Ash. We passed the Rising Sun inn, Larks Bottom and Woodlands, and returned via Knockmill

pebble bed to Terry's Lodge and on to Yaldham. Here I was taken over the house (which dates from 1190) and was afterwards brought to my own door.

We had a glass of pre-war ale, and I told the story of the maiden ladies at Ash who, finding the brewer's bill costly, determined to brew some beer, and asked every visitor his opinion of the brew. Most of them pronounced it very nice, though possibly thinking otherwise, but an old farmer's wife told the plain truth, saying, 'Well, it wets where it goes'. In fact it anticipated the war beer.

In a reminiscent letter of 14 December, 1920, Harrison referred, not for the first time, to the pleasure he had derived from the *Cornhill Magazine*, to which he was so faithful throughout his life.

In my youth I had perforce to subsist on such papers as the *London Journal*, *Reynolds' Miscellany*, *Family Herald*, etc., but in 1860 the *Cornhill Magazine* took the world by storm, and, having read the first number, I determined to take it, and have had it ever since. It has been a perennial spring of good literature even to this day.

Now, at the beginning of autumn, I rout out old numbers and re-peruse them when the evenings are long. Some of the thrice-read tales prove very interesting. An article by the late Grant Allen, *The History of Haconby*, was read twice before breakfast on a Sunday morning in December, 1879. It appealed to me, and I determined to work out my own world. I have been at it ever since. I wrote to the author, and he replied in so friendly a manner that we corresponded until his death.

The inspiration that Harrison derived from reading *The History of Haconby* was not the original stimulus which induced him to 'work out his own world'. It was rather the renewal of an influence that he had already felt for many years, as is evident from the earlier chapters of this book. That he had in fact worked out his own district with great industry was evident to all who came in contact with him, and his store of local knowledge was immense.

L

1921—AGED 83

IN this year, the last of Harrison's life, an excavation was made in the ochreous gravel at South Ash—the patch of old drift to which Mrs. Rogers had drawn his attention in 1864 by the question, 'What makes the flints in South Ash field so red?' This excavation was undertaken by Messrs. de Barri Crawshay and F. W. Shilling, who, knowing Harrison's keen interest in the site and in anything eolithic found there, brought to him their finds after each visit to the pit, and left them in his custody in order that he might sketch them. His notebook for 1921 contains his sketches of these stones and also an outline of a small piece of 'worn, weathered chert, stained with manganese', found in the pit at a depth of about four feet.

The hot, dry summer of 1921 was responsible for an entry which, apart from the sketches, proved to be the last.

N.—12. 8. 1921. I had intended sketching all the pit finds to-day, but found all my colours completely dried up, so shall for the future only outline the specimens. Temperature eighty-three in the shade.

This entry appears opposite to a sketch (in water colours) of one of the pit specimens, made no doubt, at an earlier date, and six other sketches, in pen and ink or lead pencil follow it.

A kindly letter from a friend of forty-five years' standing was received in July :

Edward Clodd to B. Harrison.

13. 7. 1921

Our friend . . . has given me your kind message, which is to me the symbol of a handshake. I am glad to have it and I thank you for it.

There survives a pleasant memory of a long day with you, and I am delighted to hear that you are still able to do the spade work, which has had satisfactory results.

We are, each of us, old enough to have witnessed changes in beliefs about man's primitive state, which it is no exaggeration to call revolutionary, since they involve acceptance of the evidence proving that man is no exception in the universe of living things, but is a blood relation.

I wish you strength for the work which is your delight and pride : like all wise men you will go on learning to the end.

In his very last days Harrison was asked by a friend and artist who dwelt at Ightham to sit for his portrait. Notwithstanding the fatigue involved, he readily consented to give the necessary sittings, and the portrait was completed seven weeks before his death.

B. Harrison to E. Harrison.

8. 8. 1921

Of late I have had no time for correspondence, for my portrait is being painted in oils, and sitting from nine till one takes the steam out of me.

I am hopeful that to-day will finish the work, for only one hand, clutching a flint, remains to be done, but the artist, Mr. Chitty of Belmont, wants to make a real masterpiece of it, and notes each new feature that appeals to his eye, and so begs for more sittings.

He offers to give me a car ride, and I have elected to be driven to Larkfield, but the gales of late have been far too rough to be faced, so we await the coming of balmy conditions.

Towards the end of August there were indications that Harrison's health was failing. His heart showed signs of weakness, and he became feeble rather than actually ill. He recognized the limits of his strength, and was careful to avoid over-exertion. He was able to occupy himself as usual in his museum, and his mind and memory remained perfectly clear.

On 27 September he received Mr. Crawshay, examined several implements brought to him, and discussed the progress of the work at the pit at South Ash. On the following morning he felt too unwell to rise. On the afternoon of Friday, 30 September, 1921, he was able to converse a little with his friend

and neighbour, Professor Percy Newberry, but two hours after his visit Harrison passed quietly away, at peace with all the world. A week afterwards, on 8 October, his invalid wife died also.

The stone at the head of Benjamin Harrison's grave in Ightham churchyard bears the lines,

*He found in life, 'books in the running brooks,
Sermons in stones, and good in everything'.*

LI

AFTER 1921

A SHORT time after the death of Benjamin Harrison a few of his friends met together and inaugurated a movement to perpetuate his memory. A committee was formed, and a memorial fund was raised, but owing to the illness and death of several members of the committee, including the Rev. B. T. Winnifrith and the Rev. John Sanger, who were successively Rectors of Ightham, and the first honorary secretary, Mr. de Barri Crawshay, the completion of the projected memorial was unavoidably delayed.

On 10 July, 1926, a memorial in two parts was dedicated. The first part was a tablet of Portland stone set in the north wall of the parish church, St. Peter's, Ightham, and bearing the following inscription :

IN MEMORIAM.—*Benjamin Harrison of Ightham, 1837-1921, the village grocer and archaeologist whose discoveries of eolithic flint implements around Ightham opened a fruitful field of scientific investigation into the greater antiquity of man.*

A man of great mind and of kindly disposition.

In a stone frame above the memorial tablet was placed one of the first two eoliths brought home by Harrison from the Plateau in 1865.

The dedication service was conducted at the church by the Rev. R. H. Streatfeild, Rector of Ightham, and an address was delivered by the Rev. Morgan Gilbert, whose friendship with Benjamin Harrison dated back to 1867, and who summed up his life by quoting an epitaph written of him :

*'He won from the Hills their secret,
And Time he has held at bay'.*



AT COLDRUM STONE CIRCLE

10 July, 1926

(Left to right : Lord Avebury, Rev. Morgan Gilbert, Sir Arthur Keith,
Sir Edgar Bonham Carter)

The second part of the memorial took the form of the purchase and vesting in the National Trust for Places of Historic Interest or Natural Beauty, of Coldrum Stone Circle, a prehistoric tomb and monument of great interest standing on a low hill beneath the Chalk downs near Trottiscliffe, on the confines of the district that Harrison explored so thoroughly.

Coldrum was a spot that Harrison loved to visit. The venerable stones spoke to him of scenes in the remote past that his imagination delighted to dwell upon. From the knoll on which the great Sarsens stand, prehistoric sites, connected in one way or another with his life and work, can be seen on all sides, and no one who has read the references to Coldrum in his notes and letters would doubt that a more fitting memorial could hardly have been chosen for him.

The ceremony of transferring the site of Coldrum to the National Trust took place on the spot, on the afternoon of 10 July. It was a breezy summer day, and there gathered round the ancient stones a company of people, larger perhaps in numbers than any assembly at Coldrum since prehistoric times, consisting of distinguished men of science and neighbours and other friends of Benjamin Harrison, united by the wish to do honour to his memory.

Lord Avebury, son of that Lord Avebury with whom Harrison corresponded for more than forty years on archaeological questions, and chairman of the memorial committee, handed to Sir Edgar Bonham Carter, on behalf of the National Trust, the title deeds of the stone circle. Sir Arthur Keith delighted his hearers by telling them something of the character and meaning of the Coldrum monument, and of the state of civilization and religious belief of the ancient race whose burying place it was. Professors H. J. E. Peake, President of the Anthropological Institute, and P. E. Newberry, the Egyptologist, testified to the interest of the stone circle and of the occasion.

Thus did an impressive relic of antiquity, which for untold centuries has stood in solitude in picturesque Holmesdale, pass into national ownership in memory of Benjamin Harrison.

LII

A PERSONAL CHAPTER

THE personality of Benjamin Harrison is a subject that might have been better dealt with by another pen than that of the present writer. Yet a chapter on his character, his ways, and his general make-up could not be omitted from this book, and his notes and letters provide a good deal of material for such a chapter. His devotion to archaeology is so fully evidenced throughout this volume that that side of his activities need not be developed here. But he was a many-sided man, and there were few subjects the mention of which did not call up a response, and usually a response founded on knowledge.

A 'phonetic charade', preserved in a scrap book, and written no doubt about a president of the United States of America, but equally applicable to Benjamin Harrison of Ightham, may preface this chapter :

*As I went out among the men,
I saw a boy whose name was [Ben] ;
And while I stood and watched them hay,
I saw a bird, it was a [jay] ;
I also saw a pretty wren
Come out and mingle with the [men] ;
I turned next to the forest, where
Among the trees I saw a [hare] ;
And just beyond I did espy
A well-grown field of finest [rye] ;
But night came on, I had to run
To reach home ere the setting [sun].

Now put together all these things
And a noted man before you springs.*

There is also a story about his name. A man who was reproved for pronouncing the word Harrison as if the initial letter were missing retorted, 'Well, if a haitch, a hay, two hars and a hi, a hess, a ho and a hen don't spell 'Arrison, I don't know what does'.

One of Benjamin Harrison's outstanding qualities was his naturalness and simplicity of character. He was a man of simple life, and he found much enjoyment was to be obtained from simple things. He was entirely without guile.

He found good in everything and he spoke and thought ill of no one. If he heard an unkind remark made about any person, he listened patiently and afterwards gently advised the speaker to 'be to his virtues ever kind, and to his faults a little blind'. The fact that he himself consistently followed this advice probably accounted in no small degree for his great cheerfulness and contentment even under the most adverse conditions. He made a friend of nearly every man he came in contact with, and he could even suffer fools gladly—up to a point.

Harrison had a great respect for the opinions of other people whose opportunities, whether educational or social, whether of study or of travel, had been greater than his own. Living all his life in a country village, and only on the rarest occasions journeying thirty miles from his home, he valued the views of persons whose experiences had covered a wider field. Largely self-taught, and without any systematic training in the science of geology, he sought with eagerness the opinions of visitors who had a right to call themselves geologists, to be told, on more than one occasion, that his knowledge of a particular subject was greater than theirs. Learning that he had been described as 'a parochial observer', he adopted and gloried in the title, and certainly his intensive exploration of his own district compared not unfavourably with the more extensive work of many other archaeologists.

The majority of mankind are most interesting when speaking of their own particular subjects and Harrison was no exception. He had enthusiasm and a touch of personal magnetism that quickly made new acquaintances enjoy even a lecture on archaeology.

He occasionally puzzled his hearers, as for instance, when he told the finder of a palaeolithic implement that it was fashioned 'when the rivers ran on the tops of the hills'.¹

'But surely the rivers never flowed up the hills and over the tops?' was the not unnatural inquiry of the bewildered implement finder.

It has been stated that Harrison was *persona grata* with the landowners of the district round Ightham. They allowed him to go where he pleased, and to dig pits in their fields, sometimes offering to supply the labour for an excavation. He was grateful for the privileges that he enjoyed, and punctilious in shutting gates and in seeing that neither he nor his companions damaged crops or hedges in the course of a walk. If he had to drop a hint to a friend who was inclined to burst through a hedge, he usually did so by telling the story of the two ladies who, on being rebuked by a farmer for breaking a fence in getting out of a field, replied that there was no gate.

'Did you ever know a field that had no gate to it?' was the farmer's searching rejoinder.

A walk in Harrison's company was invariably a pleasant experience. He selected the route, and was off the high road and in field or lane within two or three minutes after starting. He turned aside repeatedly, in order to point out some feature of interest lying near the line of route: a rare plant, a Sarsen, earth-works, a patch of implement-bearing gravel, a ruined church or castle, a picturesque house or an ancient yew tree. He pointed out the configuration of the country—often from the top of a hill commanding a view over several counties, and discoursed as he did so on denudation, glaciation and eoliths. If his companion wished to return home with a flint implement, he was taken to a field where implements could be found, and afterwards, if the search was unsuccessful, to the cottage of one of Harrison's scouts, who usually had some find of interest to dispose of.

As he grew older Harrison sometimes found himself in the company of walkers whose pace and whose powers of hill-

¹ i.e. before the present valleys were carved out.

climbing exceeded his own. He was on one occasion leading a band of 'pathfinders'—men forty years his junior—and he halted the party when half way up the Chalk escarpment, and gave them a five minutes' lecture on the denudation of the Weald, as illustrated by the panorama spread out below them—while he recovered his breath, as he told them when concluding his remarks.

His equipment for a Plateau walk in search of implements was a knapsack and a hard brush or a duster for cleaning the stones that were picked up. A five-mile walk home after a successful day on the hills was a laborious undertaking—especially when a call on a scout or two had added a few pounds' weight to an already overburdened bag. When, as sometimes happened, some spoil was left with a friendly farmer to be sent on by a tradesman's cart, the choicest finds alone found a place in the old knapsack.

Harrison enjoyed remarkably good health throughout his life, except that he had a constitutional tendency to occasional headaches, from which he suffered a good deal, and especially so in certain states of the weather.

He had and desired to have few amusements, his work and his books satisfying all his needs. He played an occasional game of cards, and did so regularly during his second wife's long illness ; and he also played the violin sufficiently well to amuse himself and shorten a dragging hour. He was a great letter writer, and until he learned to type his letters, they usually occupied all four pages of a sheet of foolscap. He enjoyed himself most of all when he was in his museum amongst his implements, whether he was working there alone, or showing and explaining his collection, or some portion of it, to a caller. It did not matter whether or not a visitor arrived with the intention of hearing an oration on eoliths, illustrated by specimens that, displayed side by side, made a most impressive exhibition, he soon found himself listening to such a discourse, and he probably stayed twice as long as he originally intended. Sometimes, however, other subjects than eoliths were talked about, as in the instance given in the following letter :

H.I.,

Y

B. Harrison to E. Harrison.

8. 7. 1906

I have just been to the post office to get some foolscap. I met a stranger there, and a chance remark on the weather started a conversation. We walked up the street together, and he actually asked if I was an Oxford man.

'No', I replied, 'only a trader who after fifty years gave up business last Christmas, retaining my house'.

I found him to be a Balliol man who knew Jowett, Max Müller and others. Then, discovering that he was interested in old china, I brought him in and showed him my Wrotham ware. This greatly pleased him, and he invited me to go to see him at his house. His address located him as a new resident: I had taken him for a visitor.

So you see, my string of friends and acquaintances lengthens.

B. Harrison to Lewis Biggs.

30. 5. 1919

You once gave me a ride round by Plaxtol and Old Soar and, when we arrived at some beech trees on the way to Ivy Hatch, you lent me your overcoat and took a snapshot of me. That photograph I like better than any yet taken of the Ightham crank.

Harrison's good luck when searching for implements—or his trained eye—was often the subject of admiring comment by his friends. He would resolve to go to a certain spot to find a palaeolith, and would succeed while his friends searched vainly beside him. He would have only a few minutes to spare for a particular gravel patch that he wished to examine, and would pick up an implement before he had taken a dozen strides over the ground. Several instances of this almost uncanny faculty have already been mentioned in these pages: one other example may be given.

B. Harrison to E. Harrison.

18. 9. 1900

Kennard came to-day but, it being so hot, we only rested, he in the hammock. However, we ran up to Buley and, as if by inspiration, I said, 'We'll go and find an implement'. It was nearly dark and raining, but I managed to find one for him [a palaeolith].

During the whole of his life Harrison was a reader, and it might be said, with little qualification, that he was reading



HARRISON UNDER THE BEECH TREE

1912

whenever he was not out of doors or working. He even read at meal times, a habit due, not in any degree to unsociableness, but to his deafness which, especially during the later years of his life, rendered it difficult for him to take a sustained part in any ordinary conversation.

He possessed a small library of about 1,200 volumes. There were some standard works of fiction, including books by well-known modern authors, several of which were presentation copies. There was the *Cornhill Magazine*, bound or unbound, from its first number, issued in January, 1860, to the part dated October, 1921, which appeared a day or two before his death. The *Cornhill* series was unbroken in the sense that he had taken and read every number, but it was incomplete by reason of many numbers having been lent to friends and not returned.

Save for the *Cornhill*, and an occasional novel of the more solid and—as he called it—satisfying type, Harrison read little but scientific literature. The works of Darwin and Wallace, Lord Avebury's writings, Samuel Laing's works, Prestwich and other writers on geological subjects and kindred topics, he read and re-read with avidity. He always took with him, when he retired to rest, a 'stiff' book, which he read till he fell asleep, and 'dipped into' during the night if he felt wakeful.

He was a great lender of books. If a neighbour was confined to his house, unwell, Harrison offered *Cornhills*, both new and old.

If a scientific friend visited Ightham for a few days, staying perhaps at the village inn, he was 'dosed' (Harrison's own word) with books and papers relating to local geology, to be read in the evening when field work was over for the day. When he returned home at the end of his visit, he was urged to take with him and to return later any book the reading of which he had not completed.

The inevitable result of the wholesale lending of his books was the loss of many of them, for Harrison seldom kept a record of a loan, and borrowers of books are the same all the world over. In later years he made efforts, not wholly unsuccessful, to recover some of his lost volumes.

B. Harrison to W. J. Lewis Abbott.

No date

In 1870 I lent Trench's *On the Study of Words* to a friend. My name was not in it, but that of a previous owner, from whom I had purchased it at a sale, had been entered.

Many years afterwards, on going into the house of a friend's brother, I said, 'I see you have Trench's book on the study of words. I have lost my copy. Would you lend me this one?'

The reply was made, 'We do not know whose book this is. It was left here by someone'.

I said, 'Well, if it bears the name of John Williams, it is mine!'

It did so, and I recovered my treasured volume.

B. Harrison to W. J. Lewis Abbott.

26. 2. 1899

Now for a good read! P—— has brought back a big pile lent him at various times, and after all there is nothing like an old book that you feel proud to lend to an old friend.

B. Harrison to E. Harrison.

11. 8. 1900

Lord Avebury writes, 'I am very glad you are pleased by what I have said in my new edition of *Prehistoric Times*. I will do myself the pleasure of sending you a copy when we get home'.

This will be pleasant, as I was literally brought up on the first edition of this book. In 1870 I obtained it from a Maidstone library. Later on I possessed a copy, but lent and lost it.

Possibly the retainer may have profited by it.

B. Harrison to E. Harrison.

2. 1. 1908

B—— is a bad one to return books, so in my last appeal to him I ventured to give him some doggerel. It proved effective, for he has sent back my copy of Keane's *Ethnology*, an invaluable book to me which he had kept since 1896.

B. Harrison to W. J. Lewis Abbott.

1907

Last week I received by parcel post *The Geology of the Garden*, a book of which I had bought two copies and afterwards lent and lost both. In the returned volume I had written, 'This book is highly prized, and any friend to whom it may be lent is requested to return it'. It was sent to me by the executors of [the borrower], after an absence of twenty years.

Worthington G. Smith to B. Harrison.

7. 1. 1909

Your list of lost books is an appalling one: it puts me in a perspiration to read it. I certainly have none of these books: when you have now and then sent me a pamphlet I have returned it, *on principle*,

immediately. But the bound volumes ! I fear that you have lent these to colithists, not palacolithists—I did not think they were so bad as that !

B. Harrison to W. M. Newton.

14. 12. 1911

Professor Keith kindly sent me a copy of the *Lancet* containing his paper on the Galley Hill skull. Alas, it was lent, and my friends are so negligent in returning valued books. This, as you know, is a sin, if ever there was one, and were I called upon to frame a new litany, I should certainly put in such a clause as this, *From friends who borrow books and fail to return them: Good Lord deliver us.*

B. Harrison to E. Harrison.

3. 1. 1914

It is needful that I should study the Wealden Survey Memoir by Topley and Foster, but my copy is lent to someone who, to say the least, is a base fellow, for the book contains letters from Dr. Osmond Fisher, and scores of marginal notes, marks, etc.

When Colonel Bevington brought me another copy which belonged to his father, I gave it to you, but would now like to borrow it for a month or two.

B. Harrison to W. J. Lewis Abbott.

9. 1. 1914

A large sheet of cardboard now hangs in my museum on which I have printed in bold black letters :

RESOLUTIONS FOR 1914.

To return all books lent to me ;

To ask my friends to return any books lent to them.

*Oh, that the books were all returned
Which I have freely lent,
Prestwich's Life, and Topley's Weald,
And Lambarde's book on Kent.*

My very first visitor this year said, 'I have *Lambarde*,' and another returned Clement Reid's *Pliocene Deposits of Britain*, lost for years. But the man who retains my copy of Topley's *Weald*, full of marginal marks of importance to me, made between 1881 and 1886 when I was studying my world from Lenham in the east to Limpsfield in the west, him I rate as no man.

On receipt of the above letter of 3 January, 1914, the present writer, to whom Harrison had given the second copy of Topley's *Weald*, returned it to him on condition that it was not again lent

to anyone in any circumstances whatever. It was not found among his books after his death, however, but a few months afterwards the writer received it from a friend to whom, notwithstanding the injunction, it had been lent. Harrison had told him of the condition under which he had resumed the ownership of the volume, but felt himself privileged to disregard it, as also, apparently, did the borrower. The original marked copy of this book is still missing.

Records of current events in the notebooks are usually prefaced by a brief statement of the wind and weather conditions, whilst a summary, giving the state of the local weather over a monthly or other period, is frequent. Harrison was, indeed, a close observer of everything that affected the weather in his district. He had a working knowledge of the elements of meteorology and forecasting, and he had accumulated a fund of information relating to old country sayings about the weather. On receipt of the morning paper he turned first of all to the weather map, confirming or correcting the forecast by the direction of the wind, as determined by the cowl on top of a neighbouring oast house, and the movement of his own barometer. His neighbours often consulted him about weather prospects, and mackintoshes or umbrellas were taken on a journey or left behind according to his advice. His forecasts were seldom very wide of the mark.

B. Harrison to E. Harrison.

7. 1. 1900

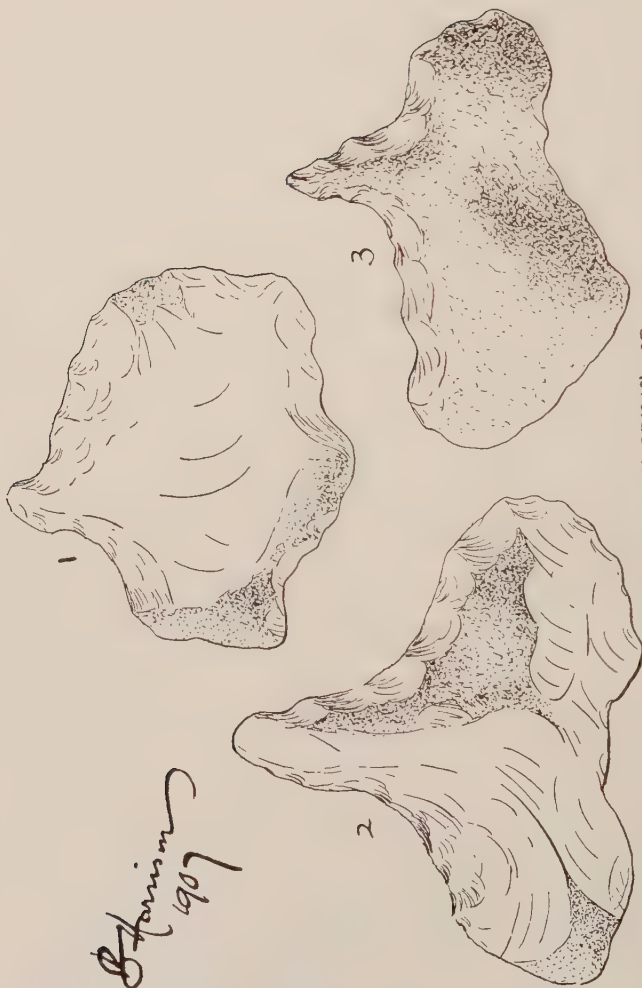
It is a dreary morning, and is coming over so dark, as if a storm is approaching. The passers-by, to church, are all under full sail—umbrellas and waterproofs.

The gloom may be due to a shift of wind to the north-west, bringing over us the London defilement. Please take note of the direction of the wind when any gloom comes on in your area.¹ Gilbert White said that it came on at Selborne from the north-east, and attributed it to London. An authority, in speaking of the same phenomenon in Epping Forest, referred to the south-east wind as bringing it.

Some years ago I asked Worthington Smith his experience at Dunstable with regard to an exceptional on-coming of gloom. He

¹ Ipswich.

B. Harrison
1907



SKETCHES BY BENJAMIN HARRISON OF
EOLITHS FROM PITS ON KENT PLATEAU

referred to its approach as if the midland and north-western districts were responsible, that is, it came from the numerous factory shafts. If this is correct, we in Kent may get the London plus the Black Country darkness.

PS.—Alas, for the future I shall be otherwise instead of weather-wise. The new village hall totally obscures the cowl of the old oast house.

B. Harrison to E. Harrison.

15. 5. 1900

The cold snap in May came on this year to the day. It usually occurs round about the tenth.

By the almanac to-day is old May day. It is not unlikely that our forefathers had their May day revels after the snap had passed, but we tinkered about and upset the pagan calendar.

Harrison had a natural aptitude for the brush and pencil. He began to sketch the flint implements that he collected at an early period of his collecting days. His palaeoliths were numbered and sketched in a book that served as a catalogue of his finds. For many years his drawings were made in pen and ink, but a time came when he used water colours, and during the last twenty or thirty years of his life he must have painted representations of several thousand specimens.

He acquired a wonderful facility for bringing out the characteristic features of a stone. When an eolith—chipped round its edges only—is laid on a flat surface, the chipping can hardly be seen. In portraying his implements Harrison wished to make the chipping visible : his drawings would have been purposeless without it—and consequently he sometimes showed a little more of the edges than was visible from above, without turning up the stones. His use of this form of artist's licence drew from Sir John Evans, on one occasion, the observation that the drawings were better than the eoliths they represented.

The following letter relates to one of the stones figured in Prestwich's paper on the drift stages of the Darent : ¹

J. Prestwich to B. Harrison.

12. 2. [1891]

I have to-day returned the block and books. After all, I think it will be best for you to draw the striated specimen, as you know the

¹ See *Quart. Journ. Geol. Soc.*, May, 1891, vol. xlvii, p. 162, Plate VIII, Fig. 7.

points better than the artist. It is the large, hatchet-shaped specimen from Ash.

You can either draw it full size, or half size, to which it will have to be reduced.

Give all the *striae*.

You might also give in red line the probable original size.

Sir Ray Lankester was an admirer of Harrison's skill in drawing implements.

Sir E. Ray Lankester to B. Harrison.

9. 3. [1912]

I want to ask you whether you would make a drawing of one of the sub-Crag flints for me—to be reproduced by half-tone process—as an experiment. I know how practised you are in drawing your own specimens.

I think in your usual drawings you exaggerate a little for diagrammatic purposes, the 're-touches'. But I should like no exaggeration—only a little more clearness than one can get by one glance at the flint. I should like dorsal, ventral and left lateral views. . . . Let me have a line from you.

I enclose a *line* drawing of one of the sub-Crag things. I don't like the line method, as it gives an untrue effect of striation. . . .

During the period that preceded the announcement by Prestwich in 1889 of Harrison's discoveries of flint implements, he was on many occasions urged by his friends—including Prestwich himself—to write and publish an account of his finds, and he certainly had some thoughts of doing so. A consciousness of real or imaginary defects as a writer, of imperfections in his geological equipment, and of the necessity for further research before he would be in a position to correlate the gravels, had always deterred him.

As soon as he found that Prestwich would be willing to take this work upon his own shoulders he joyfully consented, and thought no more of writing a paper himself.

There can be no doubt that Harrison acted wisely in this matter. In 1889, with insignificant exceptions, he had written nothing for publication, he had had no experience of meetings of learned societies, he was little known in scientific circles, and his power to take part in discussion was severely restricted

owing to his deafness. While faced by these difficulties he had the offer of one of the most eminent of living geologists to take up the subject of his researches, and to bring before the world of science the conclusions to be drawn from his finds, with the aid of his own masterly exposition and powerful advocacy.

Prestwich had indicated his readiness to write of Harrison's discoveries in a letter of January, 1888, and Harrison had agreed, but even six months later his leader gave him an opportunity to reconsider his decision.

J. Prestwich to B. Harrison.

20. 7. 1888

Sunday morning will suit me very well, and I shall be glad to see you and explain the point you name. Are you quite sure that you prefer me going on with your discovery of flint implements rather than write a paper on them yourself? I would communicate it for you to the Geological Society.

F. C. J. Spurrell to B. Harrison.

24. 11. 1888

The day before yesterday I had a long chat with Mr. Prestwich. . . . Prestwich told me that he had asked you to write something connected with the implement finds you are so concerned with, and he expressed a regret that you had declined. Allow me to say that I think you are right, and without going into reasons more than to say that he will be freer to speak of you than if you had asserted yourself.

Worthington Smith took a different view :

Worthington G. Smith to B. Harrison.

3. 11. 1893

I am just writing a brief, readable account of the geology and implements of this place, which Mr. Stanford will publish. I have many times asked you to do something of the sort, but I think you never will. One wants your thoughts. Other people's comments are very well, but one misses your own ideas very much in the published reports.

It was not until 1904 that Harrison responded to Worthington Smith's exhortation by publishing a pamphlet containing a simple account of the eoliths.

Not only was Harrison urged by his friends to write a paper about his discoveries, he was also pressed to prepare his autobiography. He was not unresponsive to this suggestion. He had

a great mass of material in his notes, and his retentive memory enabled him at sight of a brief note about some long past event to recall many interesting details known only to himself. Although he never completed a connected narrative covering the whole of his life, he did a great deal in this direction by writing into two large volumes a chronological account of his early days and of many later events, chiefly events in the history of his scientific researches. This account was prepared from his notebooks, but expanded from his recollections, and it has formed the groundwork of the earlier chapters of this book.

It is interesting to find from an entry in a notebook of 1888 that he began to work up the material for his autobiography so soon as that year, and a few weeks before Prestwich's first paper on the Ightham implements was communicated to the Geological Society.

N.—13. 11. 1888. To Professor Prestwich's. A long talk with him on my early finds, the Lenham beds, etc. To Preston Hill—a lot of iron sandstone—on to Bower Lane bed—soon found two ochreous flakes—Woodlands, Cotman's Ash, and home.

A later note has been added :

On this day on my return, I searched through diaries, and afterwards, at my wife's suggestion, began autobiography.

Ten years after a start had been made in the manner indicated, Harrison was still being urged by his friends to write something.

A. M. Bell to B. Harrison.

6. 2. 1898

You should try to write. Remember, you are sixty years old, and not everlasting. Even a little MS. book, (1) Low-level finds ; (2) High-level finds ; might be of help.

James Geikie to B. Harrison.

3. 5. 1899

You have always the satisfaction of having greatly extended our knowledge of the antiquity of man in England. And what a store of pleasant remembrance you must have laid up. For myself, I know of hardly any dreaming so delightful as the recalling of former tramps and talks with old friends. Each of one's specimens has its own tale to tell one—they form a kind of geological diary. . . .

As you seem to have a decided turn for literary work, do you never think of writing out in full your own story? I am sure if this were done . . . it would make a most interesting book. Think of it.

The thought that his friends might be preserving his letters and sketches, with the consequent possibility that some of them might one day be published, was brought home to Harrison by a postcard from Professor Rupert Jones.

T. Rupert Jones to B. Harrison. 27. 6. 1899

I have found all the poems and have put them right now. In fact I have a portfolio full of your valuable sketches and your letters.

B. Harrison to E. Harrison. 27. 6. 1899

This [postcard] fairly staggers me—to find that all my spur-of-the-moment letters should be pigeon-holed is enough to make me think. It will be some day—

*And things that I thought were dead things
Were alive with a terrible might.¹*

I must be careful.

Notwithstanding this resolution, Harrison continued to write the same style of letter, and to make the same kind of entries in his notebooks until the end of his days, and as the projected autobiography was never completed, it is well that he did so. But he made considerable progress with his task, and, following an arrangement suggested to him by A. M. Bell, he brought together material for a chapter which, dealing with the eolithic controversy, was to be called 'Oppositions and Consolations'.

B. Harrison to E. Harrison. 2. 1900

This is indeed February fill-dyke, and I look for big floods. The ground, being frozen, is non-absorbent.

The weather has enabled me this day to copy a book-ful of 'consolations'. It includes letters from A. R. Wallace, Lord Ducie, J. Allen Brown, Dr. Hicks, Dr. Blackmore, Canon Greenwell, and Lady Prestwich.

¹ The lines quoted are taken from a poem entitled, *The Conscience and Future Judgement*, by Charles W. Stubbs.

'The 'oppositions' chapter will now be taken in hand. Suffice it to say, 'tis all Sir John.

As I write, the outlook has nothing cheering except the sight of a host of robins, chaffinches, starlings and tom-tits, feeding in my garden on food that I have scattered, and looking intensely thankful.

Two or three years later the draft was submitted to Mr. Bell, who gave a candid opinion about what he had read :

A. M. Bell to B. Harrison.

22. 12. 1902

The early part struck me as very good and interesting, only requiring much re-writing. In the later part you do seem to me too much inclined to rush to battle with Sir John Evans, and to give too much prominence to the colithic part of your discoveries.

A last reference to the autobiography occurs in the following letter :

B. Harrison to ———

7. 1910

The 'two beautiful Miss Gunnings' created a great sensation in London about 1730. They were presented to King George II, and had a lengthy conversation with him.

His Majesty hoped that they had enjoyed their visit to London and had seen all the sights, etc.

'Yes, your Majesty', was the reply, 'we have seen all the sights and have enjoyed them much, but we long to see a coronation'.

Last week a visitor who had been staying in the village, and to whom I had lent Prestwich's *Life*, called to say good-bye. On seeing my notebooks, he said,

'Why, what a vast quantity of material you have. You ought to write your autobiography'.

I answered, 'The autobiography may some day be an actuality, but it will be more valuable after I am dead'.

He innocently remarked, 'Well, it certainly ought to appear, and I hope I may see it soon'.

A specimen of Harrison's handwriting is reproduced in an illustration. He was, during the first half of his life, a clear writer, but as the years passed there was a steady gain in picturesqueness and a corresponding loss of legibility. By the year 1898 his friends had begun to utter mild remonstrances.



stained fets herds found. Flint
flakes, all broken - some
pieces show the fluted moulded
rim very well. But as the pieces
show some 5 or 6 different pieces
of work it will be from the point
was a saucer -

Aqueduct site (not finished)
found one hole about 2 inches from
the main one. He found lots
of broken vessels but took no
heed of them.

These instruments he immediately
found a very large hole, it evidently
belonged to the Red Ware Series
but was an outpost forming a
hole in the wall - which
Red Ware did not -

Heard had this by hole in my eye -
for more than 20 yrs. and
now the same print

A. M. Bell to B. Harrison.

6. 2. 1898

Your handwriting grows worse. I never found it easy, but of late it is to me almost illegible, quite in character with some Plateau implements—hard to decipher.

B. Harrison to J. Scott Temple.

29. 5. 1903

Letters typed possess only a fleeting interest, whilst one written has an especial value, and is treasured.

Newton took occasion, when a letter went astray (the word 'Dartford' not being clearly written), to give me a lecture on my handwriting. I tried in my next to do better, but it was a failure, and I soon drifted into my swing-like stride.

Lord Avebury's reproaches were very gentle and courteous. His own handwriting was exceptionally legible, the suggestion made in the last sentence of the letter that follows being unfair to himself.

Lord Avebury to B. Harrison.

3. 11. 1903

I am very reluctant to seem ungracious, but I have really the greatest difficulty in deciphering your letters, and parts of the enclosed have quite beat me.

After some hesitation, I have determined to return it and ask you to touch it up, as I am really anxious to understand what you say about the Shode.

You may, I know, say that my writing is also far from what it should be!

B. Harrison to E. Harrison.

11. 7. 1905

It may be well for me henceforth to be more clear and not to puzzle my friends by my handwriting, which, in my dash-off style, is somewhat obscure.

Even Sir John [Evans] complains. In a postscript to a recent letter he writes, 'I regret that you do not use a typewriter'.

Notwithstanding his good intentions, Harrison continued to puzzle 'Sir John', who in 1907 made a further half humorous, half pathetic remonstrance.

Sir John Evans to B. Harrison.

21. 5. 1907

I much wish that you could carry out your intention to have a typewriting machine. I am fairly beaten by your letter, and I venture

to return it for your own study. Is it fair on an elderly gentleman to ask him to indulge in so much speculation as the interpretation of some of your hieroglyphics involves ?

The eolithic controversy seemed at one time likely to be eclipsed by a handwriting controversy, for whilst Mr. Wake Cook followed Sir John Evans in adopting the hieroglyphic theory, another correspondent suggested a Babylonian origin for Harrison's script.

E. Wake Cook to B. Harrison.

5. 8. 1909

The pressure of your multifarious occupations has left its trace on your penmanship, and while it has a triumphant flourish about it, most of it is like Egyptian hieroglyphics to me, as I am peculiarly dense at making out cryptic or rapid writing ; so, although I have struggled manfully with your two letters, I can only make out a word or two here and there. But, from the names I can make out, and the occasional sentence I can guess at, I feel sure they are of absorbing interest if I could only decipher them.

H. M. Sanders to E. Harrison.

Leicester, 9. 5. 1908

Thank you for the no doubt interesting letter of your father which you enclosed. The officials at the Leicester museum have been at it for weeks, and they are nearly sure they have at last identified the language in which the letter is written. It has some affinities with Babylonian cuneiform, but presents more striking features of its own. I think ultimately they will agree to call it eolithic. I shall doubtless receive a translation from them in time. No wonder you write such a disgusting hand.

Worthington Smith contributed his own light touches to the penmanship question as well as to that of the eoliths.

Worthington G. Smith to B. Harrison.

9. 1906

I would have returned these two stones before, but I have been prevented by the intense heat, by blue-bottles, flies, wasps, and by the profane language of a friend called in by me to help me decipher your last communication.

At present I have only been able to read it in part, and that part doubtful, because it does not seem to fit in with the possible context.

Worthington G. Smith to B. Harrison.

5. 12. 1909

Your letters have been a sore puzzle to me. I have been able to read none properly. In places where I had read 'all humbug' someone suggested that the words were 'all harmony'—quite a different meaning.

Worthington G. Smith to B. Harrison.

No date

I was able to read all your letter yesterday, except one word. Why not always write in that style? The fact is you have two personalities. You are all right and human when you don't write *about eoliths*, but when your 'eolithic' personality comes in you get deranged and write about an unknown subject, in unknown language, expressed in unknown characters.

The cumulative effect of the reproaches of his friends, spread over a dozen or more years, was to induce Harrison to buy a typewriter in 1910. He was impatient of mechanical contrivances, especially when they got out of order, and it had been suggested to him by an intimate friend that if he bought a typewriter he would quickly break it. However, a decision was taken, and a momentous entry made in the current notebook :

N.—17. 1. 1910. Agent brought typewriter.

N.—18. 1. 1910. Commenced typewriting. First letter to Abbott.¹

Worthington Smith welcomed the advent of the typewriter, but was a little scathing in another direction.

Worthington G. Smith to B. Harrison.

30. 1. 1910

Glad indeed to see the typewritten letter. . . . Your previous letter in a large envelope was delivered here with the address loose. You should use paste for attaching new addresses, your village marmalade is not strong enough.

The typewriter, however, was not an unqualified success. The inking grew faint and ribbons passed the point at which replacement was desirable, but new ribbons were not quickly obtainable in a country village in war-time. The amateur typist, moreover, did not overhaul his machine as regularly as pro-

¹ Mr. W. J. Lewis Abbott.

fessional standards required. So his old friend returned to the attack, in 1914 or 1915 :

Worthington G. Smith to B. Harrison.

No date

I cannot answer your note, for I cannot read it. You ought to give your machine a good boiling for twelve hours in strong soda water, to get all the dirt out of it. I know that ink has got dearer, but the mud that you have substituted for it is not a success.

Soon after the outbreak of war the letter 's' refused to function, and it was difficult or impossible to get repairs done. Then, in 1916, the machine gave out altogether, like the 'one-hoss shay', and, for a while, Harrison returned to the use of the pen. But he missed his typewriter greatly, and in 1917 the present writer gave him an old one that he had in his possession, though not without misgivings as to what would happen to it. This machine had a short life and a merry one. Harrison made a valiant effort to accustom himself to a new arrangement of the keyboard, but before he had quite succeeded, the typewriter met with a violent death.

B. Harrison to E. Harrison.

4. 1918

In conveying the 'blick' typewriter downstairs, in order to use it in a room with a good light, I broke the strap, and the whole bumped from top to bottom of the staircase. Finally the case broke open and the machine fell out, right side up. *At present it is unworkable.*

The last sentence perhaps laboured the obvious. After the end of the war a dealer offered 17s. 6d. for the wreck of the 'blick', an offer which was accepted. Harrison bought another typewriter and used it till his death.

A failing that Harrison shared with many well-known letter-writers was that he seldom dated his correspondence. At the time when he was working in close association with Prestwich, and communications were passing between them almost daily, Prestwich took him to task.

J. Prestwich to B. Harrison.

28. 4. [1891]

Please date your letters. You speak of to-morrow, but how can I know what to-morrow means without I know the day you write ?

The answer to this poser has not been preserved, but it seems to have contained a suggestion that the meaning of to-morrow might have been inferred from the date of receipt of the letter. Such a suggestion must have horrified Prestwich, who stood always for precision.

J. Prestwich to B. Harrison.

30. 4. [1891]

The parcel may have come on Monday, but that would not inform me whether the letter was written Sunday or Monday. I could make probably a correct guess, but would it not be much better to put a date to your letters ?

The pot was really calling the kettle black, if so disrespectful an expression may be used of such eminent correspondents. Although Prestwich headed his letters with the month and day of the month, he usually omitted the year.

B. Harrison to E. Harrison.

17. 10. 1897

I have had a complete overhaul of my numerous boxes and drawers for Professor Prestwich's letters, which are wanted by Lady Prestwich, who is about to write his biography.

He once complained to me that my letters were undated. I find on reference to his that only the [day and] month are given—hence I must read all of them carefully and perhaps I can give approximate years.

Reference for the purposes of this book to hundreds of letters written by Prestwich to Harrison confirms the above statement. Harrison was, however, able to fill in the year in a great many instances, and the context of letters has enabled the omission to be made good in other cases.

B. Harrison to E. Harrison.

25. 10. 1906

Yesterday I went to a football match, and afterwards to a sale in the schoolroom of the Wesleyan chapel. I was content to stay for ten minutes, and purchased a scrubbing brush for my room. Sometimes I knock over the inkstand, and I can have the brush at hand for immediate use.

Harrison was a man of quick movements, which occasionally resulted in small accidents. A chance inquiry by a visitor to his

museum as to implements to be found in particular localities would lead him to turn quickly towards a shelf in order to take down a box containing stones from the place mentioned. A like act, performed a dozen times in the course of a conversation, resulted in his table being half covered with several stacks of small boxes in positions of unstable equilibrium, whilst, somewhere in their midst, stood the imperilled inkstand. So the ink was spilt, and it was spilt often enough to justify the keeping of a special brush with which to scrub the black patches left on the table top.

Harrison wrote a considerable number of letters which, for one reason or another, he never dispatched. Sometimes he kept back a communication in order to add a postscript containing information yet to be obtained, not infrequently he placed a letter inside a book that he was reading, and thought no more about it until its contents had grown stale.

In 1884 he wrote a four-page letter on foolscap paper, mainly about personal and family matters, to his brother Thomas Harrison, at Melbourne. This letter, which is dated 20 July, 1884, was never posted, although several attempts to send it off appear to have been made, as the following endorsements of later dates testify :

N.—21. 3. 1888. In routing up in the garret, I have just lighted on this letter : as there is some news in it which I thought had been sent to you long since, I send it now.

I have fitted up the garret as a museum, and sometimes use it for writing in the summer. This letter was placed among some old blotting paper and so overlooked. I will write a sheet of recent news to send with it.

N.—3. 1889. In going through a mass of papers I find this letter and send it at once, also an enclosure which may interest you.

N.—12. 10. 1903.¹ This letter was not sent after all. References to certain events make it useful as copy.

During the war period the feelings of the nation were as strongly expressed at Ightham as elsewhere. There lived near the village a scholar and writer of enemy nationality but of

¹ Thomas Harrison had died in 1897.

essentially pacific disposition, whose time and thoughts were devoted to scientific researches. The knowledge that a German was living in their midst was sufficient to excite some of the more youthful spirits, who met one evening to plan a raid on his abode. Probably no serious damage would have been done, but the situation was dangerous, and our hapless German resident, who was on intimate terms with Harrison, came to him in great distress and told him that he had heard of an impending attack on his house. Harrison promptly interviewed the conspirators, to whom he was well known, guaranteed the harmlessness of his German friend, and saved him from any considerable molestation.

An anecdote written down by a resident after Harrison's death carries the story a stage further :

Mr. Harrison came up to our house one day with some verses he had composed and printed in pamphlet form, which he was selling in aid of a fund for sending cigarettes to our Tommies at the front. I bought some copies.

A short time afterwards he called again, with the question, 'Do you believe in charity beginning at home?' Of course I said, 'Yes'. 'Well', he replied. 'that is all right, because the German Professor is being boycotted and has very little to eat, people believing him to be a spy. So I have bought a rabbit to send him, *out of the Tommies' cigarette fund*'.

Notwithstanding this startling diversion of trust funds to enemy use, no one seems to have objected. The teller of the story could only observe, 'What could one say, after the way he had made you agree with him?'

The following letter is self-explanatory and appears to indicate that the writer thought that, although others might come and go, Harrison would still be Harrison of Ightham.

[*An Emigrant*] to B. Harrison.

Melbourne, 10. 2. 1918

I have taken the liberty of sending to you a postal order for my sister as I do not know if she is alive. . . . I have not heard from them for over twenty years. . . .

P.S.—Is your father still alive?

Harrison's father died forty-three years before the date of the letter and would have been 124 years old had he been still alive. Possibly the writer thought he was addressing a younger generation, and the inquiry in the postscript was intended to refer to Harrison himself.

The card game known as 'donkey' may also be recognized as 'muggins'. It is a game for children, which their elders play on occasion :

B. Harrison to E. Harrison.

21. 11. 1891

We had a long and exciting game of 'donkey' on Thursday evening, [three friends], your mother and myself. It would have kept on until now but for the fact that after five games yours truly was declared 'donkey'. *That was their aim.*

B. Harrison to E. Harrison.

Summer 1899

I had a bit of fun on Saturday.

Some three years since I had a clear out in the garret and found a lot of crinoline steel. It was useless, so I put one roll in a box, carefully packed it, and addressed it to [a well known village character who may be called Jack], intending to drop it one day for someone to find. However, I placed it aside, and only last week lighted on it.

The miller came in on Saturday, and I asked him to drop the parcel near Crown Point. This was done, and a man found it and took it to the inn, where that dry old stick, Fred —, was having a drink. Fred thought he saw a pint of beer ahead, so volunteered to bring it to Ightham.

Jack refused to take it in, or even to stand treat. This riled Fred, who said he had come specially with it, and he appealed to the police constable who, with another constable, was standing close by. The result was a long conference as to the best course to be adopted. Shortly afterwards the superintendent of police drove up and he urged Jack to break the cover. Jack refused. Meanwhile, in his dry way, Fred put in a claim for expenses.

It was finally arranged that the village constable should take the parcel into Jack's house and inspect the contents. He did so, and entering into the joke, repacked it and closed it, and giving it into Fred's hands, desired him to give his name and address, directing him to convey the parcel home and to keep it intact.

So far so good. The neighbours were deeply interested and curious, and the imagination came into play. The outcome was a rumour that the box contained an *infernal machine*.

Poor Fred is disturbed. He does not dare to open it lest it should explode. The police know it is a joke, but keep their knowledge to the force, and half the village worthies are exercising their brains over the mystery.

The cream of the joke was the dry, serious way in which old Fred told everyone the story of his find, the toilsome journey, and—*no beer*.

An index to a man's character and disposition may often be found in his scrap books. Harrison cut out or copied scientific notes, anecdotes, verses, maxims, and indeed any passages from books or pamphlets that particularly appealed to him. A few extracts are given below as an indication of his temperamental make-up. There are many others, which it is impracticable to reproduce. The passages that follow are given without verification, just as they appear in the notebooks.

*But breathe the air
Of mountains, and their unapproachable summits
Will lift thee to the level of themselves.*

*If thou art worn, and hard beset
With sorrows that thou wouldst forget,
If thou wouldst read a lesson that will keep
Thy heart from fainting and thy soul from sleep—
Go to the woods and hills. No tears
Dim the sweet look that nature wears.*

*Happy the man whose lot it is to know
The secrets of the earth. He hastens not
To work his fellows hurt by unjust deeds,
But with wrapt admiration contemplates
Immortal nature's ageless harmony,
And how and when her order came to be.
Such spirits have no place for thoughts of shame.*

Observation is the most enduring of the pleasures of life.

We all know Scott's denunciation of the unpatriotic
 'man with soul so dead,
 Who never to himself hath said,
 "This is my own, my native land".'

*And this denunciation may with equal justice be applied to all who,
having lived in one village, one town, or one county, do not feel some*

warmer feeling for that one spot or region than for the rest of the world, some tenderer tie to the very fields and houses, some closer fellowship with the inhabitants.

Men that undertake only one district are much more likely to advance national knowledge than those who grasp at more than they can possibly be acquainted with. Every kingdom, every province should have its own monographer.

He that would accomplish anything in his short life must apply himself to the work with such concentration of his forces as, to idle spectators who live only to amuse themselves, looks like insanity.

Better is the foolishness of the enthusiast than the wisdom of the pessimist.

For what others suspected he was the first to prove, where others speculated, he was the first to experiment, to demonstrate, and to convince.

*There is no common-place,
The lowliest thing hath grace,
Dull every-days yet hold
A loveliness untold.
'Tis we, 'tis we are purblind if no miracle we trace.*

*Earth is a marvellous scroll
To the revealing soul,
Life is one long delight
To him who reads aright,
The years a glad procession of infinite wonders roll.*

*Who sees behind the veil,
No meaner thoughts assail,
Daily upon him rises
A world of new surprises,
And fair the city sparrow as the orient nightingale.*

The Dorset poet, Agrikler,¹ held a high place in Harrison's esteem :

*Ef you lives among the clover or lives among the beans,
The way to live and let live is to live within your means,
And, whatever size or form you be, unless you be a laidy,
Be contented with the figger as God A'mighty gave ye.*

¹ The Rev. William Barnes, d. 1886.

A man who will scribble on his margins . . . is capable of anything, although a man who will not is often capable of nothing.

The search of true wisdom lies not so much in enjoying nothing very greatly as in enjoying very greatly very little things.

How much of the beauty and joy of life is made up of memories.

B. Harrison to E. Harrison.

22. 7. 1901

Yes, I read Romanes's *Life*—a capital book. Note the quotation, '*It's the dogged as does it*', with reference to the graft experiments quoted by Darwin. This maxim took my attention many years ago when reading *The Last Chronicle of Barset* by Trollope, and I was very pleased to see that Darwin was impressed by it.

When I was with [a friend] I referred to this. Before he left we stepped into the front room to see the medallions of Prestwich and myself. The latter bears the inscription, *Omnia diligentia subiuguntur*. Looking at it closely, he said, 'Which being interpreted, means, '*It's the dogged as does it*'. '

LIII

VILLAGE TRADER

ALTHOUGH the notebooks contain few references to his business, Harrison's shop was the scene of a number of interesting incidents. It was, for a village shop, a light and roomy place, the open doors of which were at the top of three steps leading down into the street. In the days that followed the announcement of his discoveries of flint implements, he was sought out by numerous scientific people who were anxious both to know him and to see for themselves something of the Ightham country and its geological features. Sometimes they wrote to him in advance of a visit, at others they came unannounced, and were perhaps the more delighted to meet him unprepared for them, yet ever ready to welcome them. A note of 2 November, 1891, reproduced elsewhere in these pages, shows that he made the acquaintance of Alfred Russel Wallace in this way, and instances could readily be multiplied.

But it was not only eminent scientists who enjoyed a chat with Harrison in his shop, supplemented probably by a visit to his museum ; his neighbours, during the time that he was in business, were equally pleased to meet him there, and in the days before modern methods of distribution had been introduced they found ample excuses for doing so. His shop was centrally situated, and a collection of daily and weekly newspapers was for many years left with him on behalf of owners living some distance away, who either called for them or waited for their papers until someone was going in the direction in which they lived.

The deposit of newspapers with him enabled Harrison to see *The Times* in days when that journal was regarded as a

luxury, and to take at least a hasty glance at such items as reports of papers read at meetings of the British Association, which were not reproduced fully in less expensive papers. *The Times* also gave him the daily weather map, which was the first thing he looked for in a newspaper.

A call to pick up the daily paper, or some other article of which Harrison was the temporary custodian, often formed a valid excuse for a conversation, which, whatever the opening subject, was sure to acquire a scientific colouring before it ended. Passers-by, who looked in merely in order to ask the way, found themselves soon listening to a lecture on the archaeological features of the district, illustrated by specimens fetched with all speed from a hidden sanctum above the shop and displayed on the counter. A sketch made on a piece of sugar paper to explain the origin of the chalk hills, or a map drawn hastily—but with great accuracy—on the same material, to serve as a guide for a walk, was taken away by many a chance caller, who left wondering not a little, perhaps, what manner of man he had met.

Archaeological pursuits and village trading do not mix readily, and it is not surprising that Harrison's business did not gain him a fortune. The following incident, which was told after his death by a fellow worker in the scientific field who knew him for many years, is a sufficient illustration of what happened on numerous occasions.

A. Hickmott to de B. Crawshay.

23. 9. 1922

Mr. Harrison's business suffered, no doubt, from his geological enthusiasm. On one occasion an old woman who lived in Ightham came into his shop to buy some cheap tea. She sat down in a chair resignedly while he talked long and eloquently about flint implements to a visitor. Mr. Harrison was absorbed in his subject, but he felt that the tea-buyer's eye was impatiently on him all the time. At last, in a sort of parenthesis, he turned to her and said, 'You can wait, can't you, or will you have the tea to-morrow?'

The answer was, 'To-morrow won't do, Mr. Harrison, but I expect I shall have to wait till you have done talking about those old stones!'

Although Harrison was able to give away but little in charity, he never refused a beggar. He made up small packets of tea and tobacco dust, and presented them to the tramps who came into his shop to ask for help. He invariably questioned such callers as to their origins, where they came from, and where they were going; and he found some of the answers he received astonishingly interesting. On one occasion he learned in this way that his shop was well known to the begging fraternity all over the country as 'the shop at Ightham, up the three steps, where you always get a hap'orth of tea'.

In a few callers of the peripatetic class, who called periodically at his shop, he took a genuine interest. One of these was a woman who had been befriended by his first wife—who died in 1877. He learned of an incident that showed him that the act of kindness had not been forgotten twenty years afterwards.

B. Harrison to E. Harrison.

II. 1899

Old Polly Longstocking came in a fortnight since, to purchase tea and snuff, to last her until Christmas. She was on her way to Ide Hill workhouse, to take up her winter quarters.

She had been working near Ash, and I heard something about her which pleased me. A child died, and she attended the funeral at Ash church. She asked the sexton where Mr. Harrison's wife was buried, and visited the grave. She then went to a shop and bought two-pennyworth of hoops and string. From another she begged some flowers. Making a wreath, she returned to the churchyard and laid it on the grave.

This story reached my ears indirectly, and she said I should not have been told it. However, I gave her more snuff and tea, and she went on her way rejoicing.

Polly was at one time a most interesting, original character, and I had from her many striking anecdotes of Cornwall and Devon, where she hails from. She seemed to me a survival of our ancient British ancestors. With her high-pitched voice and irresponsible chatter, she was always welcome.

While he remained in trade, Harrison seldom refused to attend to the needs of a customer, even out of business hours, when his thoughts were turned in quite another direction. Such

stray callers did not bring him large profits, although it is to be hoped the following is an extreme case :

N.—9. 5. 1894. Early closing day. I was busy preparing an exhibition of implements for inspection by Professor Seeley's Field Class, when there was a knock. 'A woman wants to see you at the door', was the message brought me. I found her to be an old fruit picker, an annual visitor to Ightham for the seasonal work, just arrived.

'I am sorry to trouble you, sir, but would you be good enough to let me have a few goods. We have only just come, and have done no work yet.'

'Well, what is it you want ?'

'A loaf and a half of bread, $\frac{1}{2}$ d. worth of tea, $\frac{1}{2}$ d. worth of sugar, $\frac{1}{2}$ d. worth of margarine. How much is that ?'

' $5\frac{1}{4}$ d.'

'Here is $5\frac{1}{2}$ d. Will you let me have a half-penny candle for the extra farthing ?'

In his notebook, above this entry, Harrison pasted a cutting from *Punch* :

Grocer.—'What's for you, Missy ?'

Missy.—'Farden's worf o' soda, farden's worf o' soft soap, farden's worf o' treacle, farden packet o' tacks, farden's worf o' butter scrapin's, farden's worf o' starch, farden's worf o' bulls'-eyes, and a farden dip.'

Grocer.—'That'll be twopence, please.'

Missy.—'And what'll be the discount for cash ?'

The old fruit picker paid in cash for her purchases—the same could not be said of all those who came to buy.

N.—15. 12. 1905. A terrific downpour all day. A note was brought to the door from Mrs. ——. I had sent this lady her account, on her return to Ightham after eight months' absence, and I naturally expected to find a remittance. But the bearer of the note handed me a large box. The note stated that Mrs. — could not pay her account, but hoped that I might like to accept the box and its contents. The box contained lava from Mount Vesuvius, and a skull, marked, 'Skull of a Christian from St. Luke's tomb'.

The night before I had been reading, 'What do you think of that, my cat, what do you think of that, my dog ?'

Many of the village people who made their weekly purchases at the old shop were people of slender means, and long credit was not uncommon. Most of them endeavoured to pay their bills ultimately, but bad debts accumulated, and Harrison was too tender-hearted to take extreme measures against any man or woman who pleaded misfortune and inability to pay. There was one old labourer—long since dead—a notoriously bad payer, who ran up a debt and, although a bachelor in regular employment, made no effort to reduce it. The time came when Harrison refused to supply him with goods except for cash. Thenceforward the old man paid regularly for his current purchases, but professed his inability to liquidate the arrears. Harrison determined to collect the sum owing to him, and, during a period that extended over several years he deliberately added a shilling a week to the price of his customer's purchases. The latter was quite unaware that he was being systematically overcharged, and paid, week by week, the sums demanded, without demur, until one day, he was not a little startled to be informed that he had paid off the long-standing debt without knowing it.

Harrison gave up business at Christmas, 1905 (ten days after receiving, instead of the sum lawfully owing to him, the 'skull of a Christian from St. Luke's tomb'). His business had dwindled for several years, and he had gradually reduced his staff until in January, 1905, his only remaining assistant died. During the last months in which he continued to trade, he did so alone—except for casual assistance. That the demands made upon him by his business were not at that time very great is shown by his feeling able to indulge in the mild eccentricity described in the following note :

N.—4. 1. 1905. Disturbed and depressed,¹ I determined to go for a walk. I therefore put up a notice in the window :

Health must be sought, not bought. I go to seek health to-day, and hope to return a new man. A westerly wind and a cloudy sky proclaim a health-giving morning.

I started at eleven for the Plateau. It was close in the valley, so taking it quietly, I counted the birds' nests between Fenpond and

¹ By the death of his assistant.

the Pilgrims' Way: eighty on the west side of the road, and ninety-six to Birches.

Hanging on a bough I found a horseshoe, placed there by the Water Company's workmen. It appears to be Roman.

On to pit—where Jack Frost aided me, for the hard clay which on former visits had been most difficult to remove from the flints, was now peeled off by my small knife. To the pond, but found all the ochreous flints removed to Terry's Lodge pond.

B. Harrison to E. Harrison.

5. 1919

In 1905 we had a very hot time, and the thermometer registered ninety-one degrees in the shade. I put up a notice in the shop window: *Closed from two till four: eighty-six in the shade o'erwhelms me.*

Miss —, in passing, saw my notice, and told me afterwards that she enjoyed it so much that she laughed all the way down the street.

The above extracts suggest that it was high time for Harrison to give up his business. He was sixty-eight years of age when he did so, but fortunately he lived for sixteen years after his retirement, quietly and happily, engrossed in the subjects that appealed to him most, and envying no man.

LIV

WILD FLOWERS AND NATURAL HISTORY

IF Harrison had not found his principal interest in stone implements, it is likely that he would have devoted his spare time to natural history or botany. He was an ardent disciple of Gilbert White, to whose *Natural History of Selborne* he admitted freely that he owed much. He was a lover of nature rather than a naturalist, a man who revelled in the beauties of his Kentish surroundings, and never failed to find enjoyment in the fields and woods, and in the magnificent views to be obtained from the summits of the Chalk and Greensand escarpments.

He had made only a limited study of botanical science, but his knowledge of the wild flowers of his district was extensive, and he had at one time assisted in the compilation of a local flora.¹ His favourite handbook on wild flowers was Johns's *Flowers of the Field*, a copy of which, bearing the marks of many years' use, and rebound more than once, was always on an accessible bookshelf.

There was a time—the twenty years between 1860 and 1880 cover it, and the ten years 1870 to 1880 represent its most intensive period—when he, perhaps, gave nearly as much attention to wild flowers as to flint implements. He explored Oldbury and its surroundings before 1870: he found the bulk of his palaeoliths, and nearly all his eoliths, after 1880. During the years between 1870 and 1880 he was associated with three or four friends who were all naturalists, botanists, or fern-hunters, and he took many long walks in their company, in search of

¹ *Some Materials for a Flora of Wrotham and its Neighbourhood*, compiled by the Rev. J. W. Ewing, 1882-1883.

ferns and plants. Ferns grew in abundance in the sandy woods and lanes around Ightham, and the beautiful Chalk flowers were within easy reach of his home.

When, after 1880, he found the flint implements almost all-absorbing, his botanical rambles became rarer, but he never failed to observe the less common wild flowers that grew near his line of route, and he often came home with a handful of orchids as well as a bagful of flints.

His interest in ferns was derived chiefly from his friend C. T. Druery, who was a well-known authority and writer on the subject of British ferns. For many years Druery, who was also a friend of the parents of Harrison's first wife, used to visit Ash, or Ightham, at week-ends. A long day was spent, on Sunday, in search of flints, flowers, and ferns, while pond life and microscopic objects also came in for a share of attention.

N.—16. 10. 1892. Druery, Ted and I to Terry's Lodge crest. Very cold north wind. On to Horse and Groom. Found many sports of *pteris aquilina* near the road towards home (New House Farm Down). Note : Thirty-six paces north of ash tree for the first crested specimen.

The above terse entry has been expanded a little by 'Ted' of the note. It was a very cold day with drizzling rain. On reaching the crest of the Chalk hills at Terry's Lodge, the party of three tramped to and fro over a ploughed field, in a very exposed situation, for an hour, in search of flint implements. Harrison was ready to continue the search indefinitely. Druery, who had no particular interest in Harrison's hobby, grew cold and wet, and crouched under a hedge for shelter. He mustered up courage to propose an adjournment to a neighbouring inn (the Horse and Groom) in order to obtain a glass of whisky to ward off a possible chill. Harrison was dragged reluctantly from his ploughed field.

When on the way to the inn, Druery, the fern-lover, suddenly noticed a curious growth on the bracken—'sports of *pteris aquilina*'. He at once forgot the cold, the wet, and the whisky, and for more than half an hour sought more specimens of the sportive bracken on the face of the bleak down. It was now

Harrison's turn to feel slightly bored and decidedly cold. The previous comedy was repeated with a variation, Druery being at last persuaded to desert the bracken for the shelter of the inn. The third member of the party, happily, had no particular hobby, and did not attempt to lead his companions upon yet another quest.

Harrison was always eager to obtain from neighbours or chance acquaintances any information that might add to his knowledge. A newcomer to Ightham was usually questioned about his former place of residence, and the character of the country and its inhabitants. Such conversations occasionally led to the relation of an anecdote or an incident of considerable interest. One such incident was told to Harrison by a man of the old-fashioned rural type who settled at Ightham about the year 1886. This man had formerly lived on the confines of Woolmer Forest, and as he also knew the Alton and Selborne country, Harrison obtained from him much information about those and other places. He once asked Harrison whether he had ever seen a will-o'-the-wisp.

'Once', said Harrison, 'in passing a boggy spot near Basted, late at night, I fancied I saw a faint light over the water, but it was impossible to approach it'.

'I have not only seen old Will, but have also caught him'.

'Oh, how was that?'

'Well, I will tell you. I had been with a friend to see a cricket match, one midsummer, and we had stayed till late. On our way home, as we were passing over some marshy ground in Woolmer Forest, we saw a lot of lights dancing up and down, and I said, "There's a will-o'-the-wisp".'

'The track we were following led us along the edge of the bog, and we afterwards saw much more of the light. We were both on horses, and on the light appearing close beside my mate, who was in front of me, I shouted out, "Here he comes, strike at 'un with your whip".'

'He did so, and hit 'un too, and, in a moment his horse's mane seemed to be all alight.

'We stopped our horses and looked at the mane, and saw lots of little lights entangled in the hair. They remained there until we reached home and put our horses in the stable, when the light became stronger.

“ “ Wait a bit ”, I said, “ let me go and get something to catch ’un in ”.

‘ I went indoors and got a tumbler, and shook the mane over the glass. I then covered the glass with my hand and took it into the house. We found a lot of little gnats, something like the flies in the hops, only bigger. We kept them till the next day, and their tails shone like little glow-worms. There were twelve or thirteen of them, and we showed them to many of our neighbours. The flies shone a little the next night, but not so brightly’.

Amongst the friends whom Harrison made directly or indirectly through his scientific work, Alfred Russel Wallace, Grant Allen, and A. M. Bell showed particular interest in the rarer plants found in the Ightham district, and it was a pleasure to him to find for and send to them specimens of plants whose haunts were known to him.

In a letter relating mainly to geological topics, Dr. Wallace wrote :

A. R. Wallace to B. Harrison.

Parkstone, Dorset, 15. 2. 1891

I have now left Godalming and am settled here, probably for the rest of my life. I came for a milder climate, and it is so, usually, but this winter it has been colder here than in many places further north.

As you know, palaeoliths have been found in the gravel here, but I have as yet found none, the fact being that, though greatly interested in them, I am more so in gardening and plant-hunting, and devote all my leisure time to these pursuits. I do not know whether the fine *orchis purpurea* is found anywhere in your district. It is abundant in some of the chalky woods of Kent. Should you know where it grows, I should be very glad of a few of the tubers, carefully dug up, packed in moss, and sent per post.

You will not find much in my *Amazon and Rio Negro* except an ordinary record of travel. My *Malay Archipelago* is—as it ought to be—a far superior book.

Orchis purpurea was not obtainable in the month of February, but Harrison had established in his own little garden the wild tulip and the hellebore, and he sent Dr. Wallace specimens of those plants.

A. R. Wallace to B. Harrison.

4. 4. 1891

Many thanks for the roots of *tulipa sylvestris* and *helleborus viridis* which you have been so good as to send me. I return you the list of plants. I see no others that I should care about except the *orchis fusca* and *lathraea squamaria*. I hear the latter can be cultivated and is very pretty.

Orchis purpurea had not been forgotten. The soil of Harrison's garden was not suitable for growing orchids, but he knew where to find specimens as soon as the season should reveal them.

A. R. Wallace to B. Harrison.

22. 6. 1891

Many thanks for the *orchis purpurea* (*fusca*). . . . Should you meet with any more in an easy situation for getting up I shall be glad of one or two. . . . It is not at all necessary to send the flower stem, as that is always cut off when planting. . . . The great thing is to have the tubers, *perfect*, with a bit of the stem. They can be packed with a little fresh moss tied tightly round them, and they come in quite a small parcel. . . . Almost all plants travel best quite free from earth, and with a little slightly damp moss tied closely round their roots, the foliage being kept dry.

I read Mr. Prestwich's paper with great interest, especially with regard to the rude type of implements, which I had never seen represented before. They are certainly very distinct from the well-formed palaeolithic weapons, and their having a separate area of distribution is strong proof of their belonging to a different and earlier period.

I send you by parcel post a book of mine which may perhaps interest you.¹

B. Harrison to A. M. Bell.

1919 ?

I was walking with a botanist who espied a plant, saying, 'Here is the clown's woundwort'. I replied, 'So far, I have only found it hereabout, but not unlikely it is to be found on the Gault, though out of my range'.

He then told me that Gerarde, who used to traverse the West Kent district, once saw a man who had cut his leg badly with a scythe. He advised certain measures, but the man told him that his mate had gone for some leaves to place on the wound.

A week or ten days later Gerarde again passed that way, and called

¹ *Natural Selection and Tropical Nature.*

on the man. To his surprise he found the wound healed, so he called the plant the clown's woundwort.

As the spot where we found the plant lies only a quarter of a mile from Gerarde's line of march to find many plants which grow so abundantly at the base of the Chalk escarpment, it interested me greatly.

The sacred or holy woundwort is supposed to have been used by Jesus to heal a wound made in the carpenter's shop. It is maroon-coloured.

A visit of Harrison's son to Somersetshire gave rise to the following letter :

B. Harrison to E. Harrison.

8. 1892

Cheddar cliffs ! how I envy you, or rather, glad am I to do that district by proxy.

I wonder whether the famous Cheddar pink will be found : if so, treat it tenderly and take only a flower. It grows on the limestone cliffs at Cheddar and flowers in July.

The season being late, possibly you may be just right.

The pink was not discovered on Cheddar cliffs, but it was found growing in profusion in the garden of a house at Frome. Plants were taken to Harrison and grew in his garden for several years, but they ultimately perished, owing no doubt to the absence of lime in the soil.

N.—18. 8. 1895. In the field above Crowdleham I found many plants of the blue pimpernel.

N.—24. 4. 1898. In the evening to Sheet Hill : *paris quadrifolia* found, but not in bloom. Whilst searching for a five-leaved specimen, my eye lighted on a curious fungus, new to me, and also variegated dog's mercury and blind nettle. The wild cherry trees were in bloom, very pretty.

It was a pleasant evening walk to Sheet Hill, on the right Sunday of the year, to find *paris quadrifolia* in bloom. Its habitat was known to few persons, but Harrison was ready to reveal the secret to anyone really interested in the curious plant.

Corydalis claviculata received a good deal of notice from time to time. Sir John Lubbock, who came in 1899 to see the flint implements and the drift beds, was shown the plant on Oldbury Hill.

B. Harrison to E. Harrison.

6. 6. 1899

It was a real summer day, a trifle grilling by Crown Point, but pleasant, with a cool breeze on the high levels on the Plateau. Sir John was particularly interested in the Knockmill pebble bed, and as a lower level of two feet had recently been dug, it made the depth of the bed, as he guessed it, twenty feet or more.

I referred to *corydalis claviculata* (the climbing fumitory) and A. R. Wallace's interest in it, as we were nearing the rock shelters. Sir John had never seen it in England, so I secured some small specimens and promised to send him on some more. This seemed to please him, as he wished to watch its development.

Atropa belladonna was spied in ascending the Chalk hill, and specimens were bagged.

Maplescombe valley impressed him. The only regrettable fact was that he had to catch an early train back. This taxed my resources, but I shortened my route and kept to the 700 foot level, only slipping off it to (say) 680, near Knockmill.

B. Harrison to E. Harrison.

30. 5. 1904

Having recently read Darwin's life and his reference to climbing plants, I was carefully watching a plant of the climbing fumitory, which I have in a flower pan, growing nicely. By placing the pan on a large sheet of white paper and marking the position of the plant, I find that the shoots keep describing a circle.

B. Harrison to E. Harrison.

28. 5. 1905

Corydalis claviculata, or climbing fumitory, is one of the most highly specialized tendril bearers, and one that Darwin was carefully observing shortly before his death. I have plants in my window that are the admiration of everybody. I put dry sticks into the pan in which a plant is growing—it mounts them and is most interesting to watch. It almost thinks.

Amongst other wild plants, the wood sorrel (*oxalis acetosella*) interested Harrison, chiefly on account of its possible identification with the shamrock of Ireland.

B. Harrison to E. Harrison.

26. 3. 1900

Our ramble to-day was one with an object, to find wood sorrel, our shamrock. I searched in vain : we traversed lanes and paths looking for it, but not a scrap was to be seen.

In Johns's *Botanical Rambles* the following reference is made to this plant :

'No one who has walked through a wood or shady lane in April can have failed to notice a small, bell-shaped flower, beautifully veined with lilac, lurking among delicately green, clover-like leaves. It is called wood sorrel. The whole plant possesses a grateful and acid flavour. Some antiquarians maintain that it was this plant from which St. Patrick plucked a leaf when he wished to explain to his disciples the doctrine of the Trinity.'

To-day's *Westminster Gazette* contains the following :

'The old inhabitants certainly describe, under the name of shamrog, a plant growing in woods, of a sour taste and tri-foliated leaves.'

The lack of it to-day may be caused by the backwardness of the season, for as yet I have not seen a single primrose : in fact there is no move with many of our spring plants.

B. Harrison to W. J. Lewis Abbott.

30. 10. 1899

Yesterday my wife and I made our way to Basted fissure, expecting to meet Dr. Corner. He was not to be seen, but thinking he might be hidden by the rocks, I made my way by a ladder to the high platform. On my coming down, my wife said, 'You have left Bingo on the top', and, looking up, I saw the old dog unable either to mount higher or to get down.

I retraced my steps, and no sooner had I reached the top than I lighted on a bed of *veronica buxbaumii* in full bloom. This is the intensely blue speedwell, now common throughout England, but not referred to in old botanical works, as it has made its way here, with imported seeds, from the Continent.

B. Harrison to E. Harrison.

4. 7. 1900

I found one bee orchis growing in the clay fields near St. Clere—the first I have ever found off the Chalk.

B. Harrison to E. Harrison.

18. 7. 1900

I noticed in 1885 that the *spiraea ulmaria*—meadow sweet—found on the downs near Beachy Head, was not more than two inches and

a half high. The same plant observed the next year on the clay above the head of thecombe west of East Dean grew to normal height.

B. Harrison to W. J. Lewis Abbott.

7. 6. 1903

We have a local saying, 'Like old Reynolds's dog, a better hunter alone than in the pack'. This old beagle would go out alone, find a hare, and keep on till eventually it ran it down.

I, too, enjoy a run by myself *at times*, and had one this morning, finding butterfly orchis, twayblade or gnat, white helleborine, and adder's tongue, one specimen of which had three tongues, never observed before. I found also a host of minor Chalk beauties and returned home in fine form.

I cut all the orchids on the principle,

*Pull an orchid, orchid nil,
Cut an orchid, orchid still.*

B. Harrison to ————

18. 6. 1913

I was so pleased to find that you had lighted on the *orchis fusca* plants.

If you want to see *fusca* in its glory take a ride to Holly Hill, for in the woods near by it is found in abundance. There is a long, winding, narrow lane leading to an old church in the valley, called Buckland. The lane is called Wrangling Lane, and in the woods on the side of the hill to the east we used to find *fusca* plants by the score.

Holly Hill also produces lily of the valley and will amply repay you for a pilgrimage, for it is the holy hill, and played an important part in pagan times.

Leave your bicycle at Punish Farm. Then, in having a good look round, get out in the fields a bit, for some points in the very extensive landscape would be lost from the road.

What you term the slipper orchis is not unlikely *epipactis grandiflora*. This is to be found under the big beech tree growing beside the road, just by the turn, going towards Terry's Lodge, and also on the bank, in the fence, going up the old London road. Some very fine specimens are to be found there.

Lord Westbury, when distributing prizes at Farningham, had to present *Robinson Crusoe* to a boy, and asked him :

'My boy, have you ever read *Robinson Crusoe* ?'

'No, my Lord'.

'Then I envy you'.

So I envy you in traversing for the first time the Holly Hill area.

A few notes of animal and bird life are found in Harrison's letters and notebooks.

N.—Autumn, 1904. The summer being unusually hot and dry, the necessary mud for the swallows to build with was very scarce. I was struck one day to find that the nests under the eaves¹ had all fallen down and the young birds had been killed. It seems not unlikely that the lack of adhesiveness caused the bottoms to give way when the young birds began to gain weight and to struggle in the nests. No second attempt to build the nests was made.

Shortly afterwards my attention was drawn to a sycamore tree. Here a swallow had built a nest in the fork of a branch from the main stem. This seems like reasoning on the part of the birds, and a start in a new direction. It will be interesting to note if it is followed next year.

B. Harrison to W. J. Lewis Abbott.

12. 1905

Under good conditions I started for Ash yesterday, returning fresh and rejuvenated, after eight hours' tramp. I obtained three most excellent palaeoliths from North Ash, capital neoliths, some of them polished, and eoliths enough to satisfy me. Unfortunately the frost gave way and rendered the South Ash patch unapproachable.

It was a meditative walk. I counted nearly 200 birds' nests, and studied the composition, architecture, etc., of the nests. Some birds select thorn bushes and forks, others, as the white throat, the brambles, but all avoid the hazel—I presume from its being so subject to wind lashing.

On descending Exedown, it was a sight to see the sun set fiery red in a dense fog stratum, and the moon rise in full splendour in the east. It recalled such a walk on the day Tennyson passed away.

N.—21. 5. 1908. To Addington, Coldrum, and Golden Nob. We observed a butcher bird in the Pilgrims' Way. [My companion] said that his wife was recently sitting near the river at Tonbridge, and saw a rook drop down, seize a fish, and eat it. Shortly afterwards the bird tried to repeat the feat, but missed the fish and came out of the water soaked.

N.—5. 7. 1911. Went to see a young cuckoo in a hedge-sparrow's nest. All the young sparrows had disappeared, either thrust out or taken by the old cuckoo. The young one was most interesting to watch, so ravenous for food, the interior of its mouth a bright orange colour.

¹ i.e. the eaves of a cottage belonging to Harrison.

B. Harrison to W. J. Lewis Abbott.

23. 9. 1911

I said to a keeper a few days ago, 'I ought to send a bill to the Colonel for his rooks. Not only were they fed by me in the snow, but they come to the field by my garden, and one settled in my big elm tree'.

He asked whether I had any cob-nut trees, saying that now that the rooks have difficulty in obtaining food owing to the drought, they tackle the cobs, flying with the nuts to the big trees, where they eat them.

I have noticed for many years that at a certain time in the autumn the rooks assemble in the big elm trees, in front of my house. As there is a cob-nut plantation near, this may account for their coming.

LV

THE NOTEBOOKS

HARRISON's notebooks have been so freely drawn upon in the compilation of this work, that it might be thought unnecessary to devote even a brief chapter to an explanation of their character and contents. But when it is stated that there exist well over forty notebooks and diaries, each containing, on an average, perhaps 200 pages, it becomes evident that not a tithe of their contents could be reproduced here ; and amongst the excluded matter are whole classes of entries that are not and could not be illustrated by the passages selected for insertion.

In the following letter to Dr. Bather, Harrison described briefly his practice of keeping notes :

B. Harrison to F. A. Bather.

6. 1. 1913

For a vast number of years I have taken copious notes, in the first place a diary from 1865 to 1877, when it was for a time dropped, but on meeting with Professor Prestwich, I slightly altered my plan, and notebooks were re-installed. These number over thirty, and the indexed references are close on 3000.

The above letter is in certain respects not quite accurate. In the first place, Harrison made a considerable number of notes in sundry small pocket books before 1865, the first of such books containing some effective sketches of houses and buildings at Ightham, made when he was a schoolboy, between 1849 and 1851. He also mentioned on more than one occasion a lost notebook, which contained amongst other entries a record of his first visit to Ash in 1864. Secondly, the diaries did not cease

in 1877, but were continued till 1880, from which year there is a gap (due, probably, to the loss of one or more books), until 1884. From 1884 until his death he made his notes in quarto exercise books, and it is this set of books that is most appropriately described as his notebooks.

That Harrison prized his notebooks for the sake of the records they contained is certain, but he, nevertheless, sent them by post to his friends, on occasion, and lost at least two of them in that way.

B. Harrison to ———

About 1905

Take care of the old notebook, for someone has kept No. 2, which contains my first visit to Ash, diagrams, copied from Lyell, on the Weald, etc., etc.

No. 7, a book that might have partly filled in the gap between 1880 and 1884, was also lost.

The principal interest of the notebooks lies in the record they contain of Harrison's scientific pursuits. This subject made up the bulk of the notes. There was usually, in addition, some reference to the weather, and especially to exceptional conditions, such as extreme temperatures, very wet or dry periods, etc. General events and domestic incidents were noticed occasionally, as a rule very briefly. Letters from scientific friends were in many instances copied into a current notebook, or the original letter was pasted into the book. Where the latter course was taken there is usually some obvious explanation. For instance, a note of 1901 recorded the finding by a workman of three especially interesting implements. These implements, after being sketched, were sent to Sir John Evans, and a letter containing his comments on them was pasted into the notebook, opposite the entry relating to the finding of the implements.

Although, in addition to his notebooks, Harrison kept a series of scrap books, he often pasted a press cutting into a current notebook. Notices of papers read to scientific societies, references in current periodicals to the eoliths, archaeological discoveries, and similar subjects, formed the greater part of

such records, but they were varied from time to time by a cartoon or a sketch from *Punch* that especially appealed to him, and records of local events also found a place in the books.

Most of the notebooks have been written up from both ends. The reason for this is plain on examination of the books. On beginning a new notebook Harrison appropriated one end to the primary purpose of the book—a record of his activities. Before many days had passed, however, he perhaps received on loan from a friend an interesting paper or book, from which he wished to make copious extracts, or he cut out of the *Times*, say, a report of a paper read at a meeting of the British Association. The other end of the current notebook was used for such records, and so the notes proper and the extracts and cuttings often met somewhere towards the middle of a book.

The miscellaneous character of the contents of the notebooks makes them interesting reading, if only by reason of the diversity of subjects. They also afford an opportunity to gain an insight into the character and tastes of the owner, for a man may surely be known by the cuttings he preserves as well as by his own writings.

There are numerous sketches in the books, principally of flint implements, but also of sections, trees and plants, buildings, coins, fossils, and anything and everything that might appeal to the tastes of an antiquarian. The serious entries are interspersed with light verse—sometimes good, but often indifferent, as the author would have been the first to admit. The verses were what he often called his ‘knock-offs’, hastily composed to fit the mood of the moment, sometimes written up afterwards, and sent, perhaps, to a friend, and at others left in their unpolished state in the notebook, and thought of no more. They were not intended for publication, but two or three specimens have been reproduced in these pages.

As the notebooks grew in numbers, so particular entries became less easy to find, and Harrison made a comprehensive subject-index of their contents.¹ In his letter to Dr. Bather,

¹ This index was begun in 1891—see page 172.

reproduced above, he stated that the references in his index were nearly 3000 in number : and he indexed, not everything, but only notable facts and events. Both notebooks and index are a tribute to his untiring industry and perseverance, and they have been the means of preserving innumerable records that would otherwise have perished at his death.

APPENDIX

A LARGE number of extracts from notes and letters that, generally speaking, would have appealed only to students of the branch of archaeology in which Benjamin Harrison worked have been excluded from this volume. For the information of persons interested in the subject a list of the principal heads under which such extracts have been grouped is given below :

1. The Eoliths of the Chalk Plateau.
2. Gravels and Localities of the Chalk Plateau, namely :
 - (a) Ash and its Neighbourhood.
 - (b) Birches, Crowslands, Drain Farm, and Knockmill.
 - (c) Bower Farm, Bower Lane, and Romney Street.
 - (d) Brands Hatch and Chimhams.
 - (e) Cotman's Ash and Maplescombe Valley.
 - (f) River Cray.
 - (g) Dunstall and Preston Hill.
 - (h) Exedown, Hognore, and Golden Nob.
 - (i) Fairseat and the District near the Vigo Inn.
 - (k) Goodbury.
 - (l) Terry's Lodge (the Crest of the Chalk Plateau above Exedown).
 - (m) Well Hill and Eynsford.
 - (n) Wrotham Hill and Plaxdale Green.
3. Animal-like Stones (Figure Stones).
4. Traces of Lenham Beds.
5. Distribution of Southern Drift.
6. Ice Work near Ightham.
7. The Shode Stream and the Basted Fissures.

8. Gravels of the Shode Stream.
9. Some Gravels of the River Darent.
10. Some Gravels of the River Medway.
11. Sarsens and Stone Circles.
12. Wells and other Sections.

Extracts of merely local interest, which also have been omitted, have been grouped as follows :

13. Ightham Footpaths.
14. Inclosure of Ightham and Wrotham Commons.
15. Some Ightham Place Names.
16. Some Wrotham Place Names.
17. Ightham Tokens.
18. Antiquities at Borough Green.
19. Antiquities of Oldbury Hill and its Neighbourhood.

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